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Consumer BULLETIN

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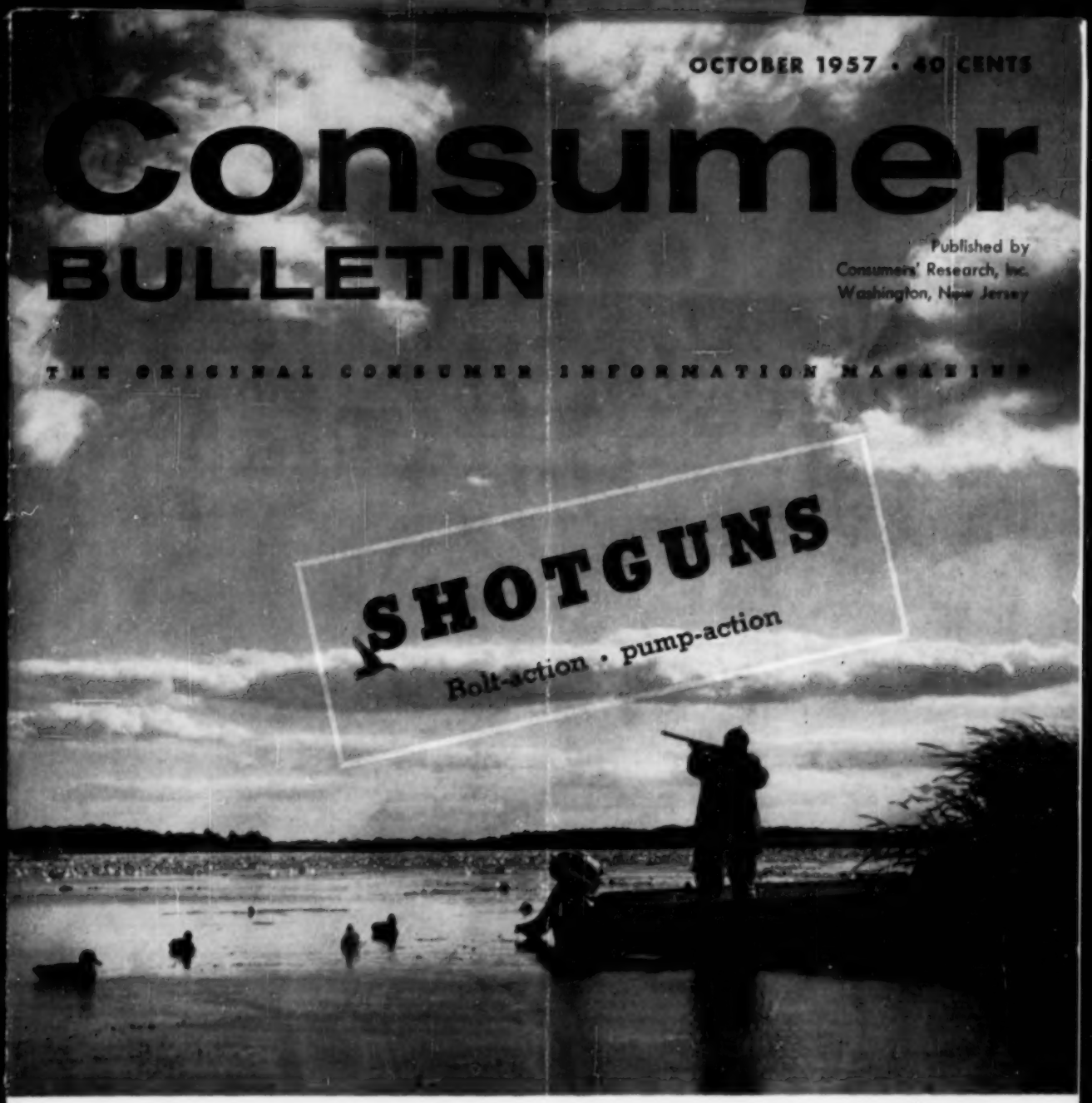
THE ORIGINAL CONSUMER INFORMATION MAGAZINE



WAFFLE IRON-GRILL COMBINATIONS

IS YOUR GAS PIPING SAFE?

DO YOU REALLY GET A DISCOUNT?

STAINLESS STEEL SAUCEPANS

COMPLETE CONTENTS ON PAGE 5

Longer life for your color slides

NOW THAT SUMMER has gone and cold winter nights are not too far in the future, you may be planning to spend a few hours viewing the beautiful summer landscapes and scenes of autumn foliage which you so carefully photographed during balmier days. The chances are that the slides you took this summer and fall will project in all their sparkling beauty, but what kind of results will you get with these slides next summer or with 1956 slides now? They may be badly faded, or colors may be quite different from what they were when fresh and new.

Ektachrome

Those beautiful hues that make up a color slide come from organic dyes, and processing of the film has combined these dyes in the right proportions to give pleasing—though often not accurate—color rendition of the photographed scene. All dyes are fugitive to some extent, and those used in color films are affected by three important factors, heat, light, and moisture. Small amounts of acidic gases such as hydrogen sulfide and sulphur dioxide which are sometimes present in the air in industrial regions may also cause slow fading of the dyes.

An extended period of exposure to strong light, such as sunlight or the light of the bulb in a projector, will cause fading of color films. High relative humidities are more damaging

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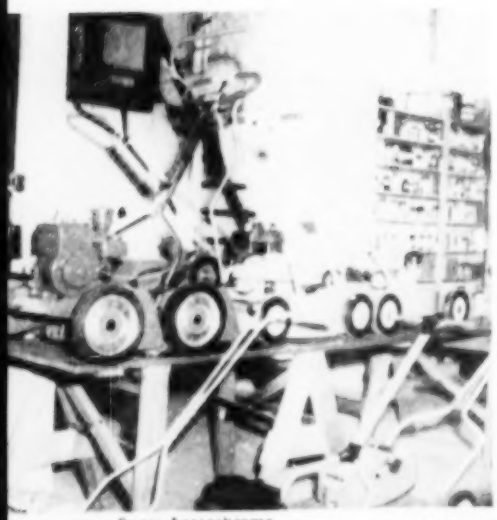

Super Anscochrome

The accompanying pictures are black-and-white positives made from Ektachrome, Super Anscochrome, and Kodachrome slides. The right side (lighter side) of each color transparency was exposed to sunlight. The amount of fading is much more evident in the original color slides than in the changes of tone in the black-and-white prints. Thus a grayish-green wall turned pale purple on the Super Anscochrome; on the Ektachrome and Kodachrome, a predominantly blue cast was evident in the faded areas. The reds faded on all three slides.

Kodachrome

The Consumers' Observation Post

THE POOR WORKMANSHIP AND SLOPPY ASSEMBLY of new automobiles are the subject of frequent complaint. Automotive News has printed a number of letters from dealers who have the problem of preparing new cars for delivery to buyers. Their mechanics consider the late model cars "just slapped together" by the "quick and dirty" method in too many cases. Poor and skimpy paint jobs, badly misaligned exterior body parts, and quick-rusting chrome plate are common difficulties. Another cause of dissatisfaction among car owners is the mounting cost of needed servicing, partly due to poor inspection at the factory.

* * *

WHEN FROZEN FOOD IS ALLOWED TO THAW and then refreeze, is it safe to eat and still nutritious? In a study carried out at Pennsylvania State University to find the answer to such questions, typical foods were frozen, allowed to thaw, and then refrozen three times and compared after each thawing on the basis of bacterial growth, nutritional value, and taste or palatability. Ground beef, broilers, peas, asparagus, and strawberries were included in the test. In the case of the ground beef, the bacterial count increased noticeably, and under the conditions of the test it was concluded that non-acid foods subjected to such drastic conditions could not be assumed to be safe to eat. So far as taste quality was concerned, the beef was acceptable after the third thaw, but the broilers showed deterioration after the first thaw and were not considered fit to eat after the third thaw. The strawberries were considered unacceptable in taste by the end of the experiment, but the peas and asparagus were still edible although they had lost quality. The nutritive value as measured by vitamin C was retained by the peas, but there was a small loss for the asparagus, and a definite loss for the strawberries.

* * *

LAWNS CAN BE KEPT GREEN IN WINTER by the application of a special green spray. Experiments conducted at Clemson Agricultural College, South Carolina, indicate that it is possible to have a pretty green lawn all winter without mowing, fertilizing, or watering. The lawn should be kept mowed at the right height so that the grass has plenty of leaf surface after frost to hold the spray. The cost runs around 2-1/2 cents per square yard, according to an estimate by the Clemson Extension Service, for the sprays available from Coward Seed Company, Aiken, S. C. This company, however, advises that the application of such sprays is best done by professionals.

* * *

BUYING ON THE INSTALMENT PLAN enables many consumers to have the use of major appliances when they first set up housekeeping without the delay occasioned by their having to save up money to buy them outright. The consumer should shop for credit just as he shops for any other service to make certain that he is securing the best rate available. Robert W. Johnson, Associate Professor of Finance at the University of Buffalo, points out that there are three commonly-used types of finance charges: add-on, discount, and interest on the unpaid balance. The borrower should set down the exact amount that he is actually charged so that he knows in terms of dollars and cents just what a particular transaction will cost him. Then he should compare the cost to borrow the same amount from a bank or a credit union or perhaps another finance company. Percentages are tricky figures, and it will be wise to get the total out-of-pocket costs in terms of dollars and cents to make an effective comparison. Above all, do not fall for the sales argument that you can save enough on some particular

appliance to pay for it. As an observing consumer retorted to a salesman who had offered this sales argument: "...you see we're paying for our car on the carfare we save. Then, we're paying for our washing machine on the laundry bills we save, and we're paying for the house on the rent we're saving. We just can't afford to save any more right now."

* * *

SHAMPOOS CONTAINING SYNTHETIC DETERGENTS will not burn hair. The Federal Trade Commission in July 1957 issued a complaint against Lanolin Plus, Inc., for advertising that harsh detergent shampoos "can literally burn your hair." The F.T.C. said flatly that it wasn't so. As a matter of fact, Lanolin Plus Shampoo was found to contain a lauryl sulfate, one of the most commonly used synthetic detergents.

* * *

WHAT DOES THE TERM "Easy Servicing" mean? Its practical definition is not the same when interpreted by engineers as when it is used by sales departments and advertising people, according to Electric Appliance Service News. The journal criticizes severely the need for removing the back panel of a stove in order to make a simple replacement of a pilot light. It also suggests that manufacturers improve quality control at the manufacturer's level in order to cut down on the present number of in-warranty service jobs that are becoming too great a load for the local dealer. When an appliance must be dismantled to make a simple repair or replace a common part, it's not really "easy servicing." Servicemen highly trained to maintain the many mechanical and electrical appliances in the average home must be well paid for their time, and manufacturers must begin to recognize this fact in designing appliances.

* * *

WASHABLE SHOE BAGS are quite useful for storing baby's toys. The American Home Laundry Manufacturers' Association points out that the bag can be conveniently hung on the side of the baby's play pen and when it gets soiled can be popped into the washing machine. The A.H.L.M.A. also recommends protecting novelty pearl or glass buttons by enclosing garments on which they are sewn in a mesh bag or pillowcase before drying in an automatic dryer.

* * *

TOURISTS RETURNING TO THE UNITED STATES from abroad should not bring back unprocessed foods, plants, and seeds. Federal quarantine inspection is quite strict because of a recent infestation in Florida of the Mediterranean fruit fly discovered in the area surrounding the International Airport at Miami. Some entomologists believe that the fly got into this country from infected fruit brought in air passengers' baggage. One passenger arriving in New York by plane from South America had brought back a half pound of fresh coffee berries to show the family, and inspection revealed the fact that five berries contained living larvae of the fruit fly. Souvenirs made of or packed in material such as cotton waste, rice straw, and wheat straw may also introduce insects or diseases.

* * *

COTTON, which is one of the basic fibers for fabrics that are made into shirts, dresses, and sheets, is being hard pressed by the new man-made fibers. Quite a number of producers of cotton are finding that Uncle Sam's subsidies and controls have been partly responsible for the decline of markets both at home and abroad because its price is too high. Some producers took the position at a conference last spring that the price support operation was strangling cotton out of existence, pointing out that the basic support price was around 30 cents a pound while world cotton prices were 26 to 27 cents a pound. Somewhat timidly the suggestion was made that lower domestic prices and greater freedom of planning, perhaps some day even a free market, might improve the demand for cotton. Consumer taxpayers should applaud this step, because the federal government is now spending nearly a billion dollars a year on "supporting" cotton through various farm programs and has a bulging surplus of cotton to get rid of under the government price-support program.

(The continuation of this section is on page 33)

Consumer Bulletin

THE ORIGINAL CONSUMER INFORMATION MAGAZINE

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Listings usually are arranged in alphabetical order by brand name (not in order of merit) under each quality or performance rating. A numeral 1, 2, or 3 at the end of a listing indicates relative price, 1 being low, 3 high. Where the 1, 2, 3 price ratings are given, brands in the 1, or least expensive group, are listed alphabetically, followed by brands in price group 2, also in alphabetical order, etc. A quality judgment is wholly independent of price.

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Combination waffle irons and sandwich grills

MOST waffle irons nowadays are also sandwich grills, or if you want to look at it the other way around, most sandwich grills nowadays can also be used as waffle irons. With storage space at a premium in almost every home, the combination appliance is undoubtedly a good one for many families. Usually the change-over from one appliance to another is accomplished either by changing the grids or by turning the grid surfaces over. Most manufacturers use the first method, which does have one disadvantage, the necessity for storing the separate grids of the grill or waffle iron.

National Presto has still another way of providing a multiple-use appliance. This company markets a thermostat unit which can be plugged into several different appliances (see illustration). A waffle iron, a griddle, as well as a number of other heating appliances are available from Presto. In the present study, CR tested the *Presto* griddle.

A control to regulate the temperature was to be found on each of the combination waffle iron-grill appliances tested. An automatic temperature control helps the family get bacon and sausages cooked the way they like them, avoids burned cheese sandwiches, and also helps them get waffles done the way they want them. Housewives for years, however, have followed a time-honored method for determining when a waffle is done—noting when steam no longer escapes from between the grids. This method of judging doneness is about as convenient as noting when the indicator light goes off.

This is not to minimize the usefulness of the indicator light, which is helpful in showing when the grids are ready for batter or for the next batch of sandwiches. Most indicator lights are on the top of the waffle irons. While this is fine for baking waffles, it is not so good when the appliance is opened out as a grill, for then the indicator light is facing the table top. Sunbeam, Toastmaster, and Westinghouse put their lights in the front, as part of the temperature control.

The thermostat control of the *Kenmore* is on the side, under the handle—an inconvenient location, on the whole. On most of the appli-

Manufacturers differ in their ideas of the best way to design a combination grill and waffle iron so as to provide two kinds of cooking surfaces. Housewives, having their own kitchen's storage problems in mind, may prefer one kind over another.

On most of the makes tested, the manufacturer provides four separate cooking surfaces, two smooth ones for grilling and two waffle grids, as on the Westinghouse shown at the right. On others, as on the General Electric shown in the picture at the left on page 7, there are two grids, each with a smooth surface for grilling on one side, and a waffle grid on the other. On others, as on the Kenmore shown at the right on page 7, the grill surface is a part of the appliance and the two separate waffle grids are simply placed over them and fastened.

ances, however, the control was at the front. The *Presto* control, with the indicator light and the dial on top having temperatures plainly marked and a temperature guide printed on a handle of the griddle was judged most convenient.

Most thermostat controls provide an "off" setting in addition to settings for baking and cooking. With those that do not have an off position, it is necessary to detach the plug from the socket in order to turn the appliance off. This is good practice in principle, but presents some inconvenience. The only control lacking an off position was the one on the *Dominion*.

The thermostat control is useful for still another purpose—keeping the appliance from becoming hot enough to damage surfaces on which it rests. It has been pretty well established that the temperatures beneath any appliance used on a table top should not be higher than 175°F. Continued heat, at elevated temperatures, may cause certain varnish or lacquer films to become brittle. Very thin films may become brittle more rapidly than the thicker ones.

We are glad to report that temperatures beneath the appliances tested did not in any case reach 175°F after operation at highest temperature setting for half an hour. The *Presto* caused the highest temperature on the table top, but this was only in the neighborhood of 150°F. It would seem, therefore, that all of the appliances tested could be used without any substantial likelihood of damage to the surface of a dining room or kitchen table or counter.

Handles on the appliances did not become too hot to touch during normal operation, except on the *Universal*. On this grill, the front handle had two exposed metal pieces which became hot. Measured temperatures indicated that on all the appliances tested, handles could become sufficiently hot when operated over a long period of time to present a hazard of burning the fingers.

Call on your combination appliance for many jobs.

Don't limit the use of a combination grill and waffle iron to making waffles or grilling sandwiches. The grill can be used for hamburgers, liver, bacon, eggs, and a great variety of grilling and frying jobs.

Waffle irons may be used to bake cornbread, corn fritters, drop biscuits, oatmeal drop cookies, brownies, French toast, spice cake, and gingerbread.

In these dual use appliances it is important that the appliance be stable when the top is lifted for adding waffle batter, for example, and all of those tested were relatively good in that respect. Bottom and top portions should be level when they are opened out for use as grills. This unfortunately was not true of all makes; in some cases, grill surfaces were sufficiently out of level to permit grease to run away from the spouts provided on the grill grids. Since the levelness of the grids may vary from sample to sample, the consumer should check in the store the particular model he picks out before he takes it home. Five of the appliances, *Dominion*, *Presto*, *Sunbeam*, *Superlectric*, and *Westinghouse*, had a cup or dish for catching the grease overflow.

On waffle irons, an overflow groove or rim is almost a necessity, for few housewives can be counted on to use the correct amount of batter for each waffle. Most manufacturers provide a groove or rim as part of the waffle grid but on

some, *Superlectric* and *Toastmaster*, for example, there is no overflow groove and the rim is raised so slightly as to be of little value.

Research has established that broad waffle grids, at least ¾ of an inch square, bake more crisp waffles, especially if they are shallow, than small, sharp, deep grids. Some of the waffle irons in the test made waffles relatively thin and crisp while others made them thicker and more tender. The *Sunbeam*, *Toastmaster*, and *Westinghouse* were judged outstanding in making good, evenly-browned waffles.

Those who studied the appliances at Consumers' Research and college home economics students who also used the appliances during the course of this series of tests formed very definite, sometimes conflicting, opinions about the desirability of the various ways of changing from one kind of cooking grid to another. Knobs and latches in hard-to-get-at places and screws that are hard to get started properly were specific complaints. They learned that it was better to remove the top grid before changing the bottom one. The appliances tended to tip over when the weight of the grid was removed from the bottom, although all the appliances were relatively stable otherwise.

Most of the combinations tested were square in shape, about 13 inches by 13 inches. The *General Electric* and *Superlectric* were rectangular, about 8 inches by 12 inches. The *Presto* grill was rectangular also, about 9 inches by 20 inches.

The *Dominion* and the *Superlectric* were the only combination waffle iron-sandwich grills tested that had removable cords. All combination sandwich grill-waffle irons tested were for alternating-current operation only.

All the appliances in this test had the *UL* label, except the *Superlectric*.

A. Recommended

Dominion 1225 (Dominion Electric Corp., Mansfield, Ohio) $21.95. Square. Had four grids: two for waffles, two for the sandwich grill. Had detachable cord and a cup to catch the grease. Thermostat control lacked "off" setting. A good serviceable appliance that performed well in all tests.

Toastmaster 2D3 (Toastmaster Products Div., McGraw Electric Co., Elgin, Ill.) $32.50. Square. Had four grids: two for waffles, two for sandwich grill. Control and indicator light were well located on this appliance. The *Toastmaster* made good, evenly-browned waffles.

Wards (Montgomery Ward's Cat. No. 86—2110) $17.95, plus shipping charges. Square. Had two reversible grids. A good, serviceable appliance that performed satisfactorily in all tests. Design of handle (which lifts to form foot for grill) presents a burn hazard.

Westinghouse SG WB 521 (Westinghouse Electric Corp., Mansfield, Ohio) $32.95. Square. Had four grids: two for waffles, two for grill. Had a cup to catch grease. Control and indicator light were well located on this appliance. The *Westinghouse* made good, evenly-browned waffles.

B. Intermediate

Presto Griddle SG-33 (National Presto Industries, Inc., Eau Claire, Wis.) $14.95. Rectangular. Had glass dish for catching grease overflow. Some shock hazard present in griddle tested under conditions of high humidity. ¶Separate *Control Master HC-1* ($6.95) would receive an *A-Recommended* rating.

Sunbeam CG (Sunbeam Corp., 5600 Roosevelt Road, Chicago 50) $34.95. Square. Had four grids: two for waffles, two for grill. Had a cup to catch excess grease. Would have received an *A-Recommended* rat-

The Presto Control Master, which is used with several different appliances. One of these is the griddle shown; another is a waffle iron. This year a number of manufacturers have come out with probe attachments to control temperature, similar to this one. Most of them are marketed as separate attachments and sell at around $7. The devices are not interchangeable among the items of different manufacturers.

On three of the combinations tested, Toastmaster, Universal, and Wards, the front handles lift up to provide a "foot" for the grilling surface. On the Universal and on the Wards (shown at the left) there is some danger of touching the metal surface and getting a burn if the appliances are opened up to provide surfaces for grilling after they are hot. On the Toastmaster (at the right), the design is better and there is some protection for the fingers.

ing except that there was some shock hazard present under high humidity conditions.

* * *

General Electric G42 (General Electric Co., Bridgeport, Conn.) $21.95. Rectangular. Had two reversible grids. This appliance baked and grilled unevenly.

C. Not Recommended

Kenmore (Sears-Roebuck's Cat. No. 344—6668) $18.95, plus shipping charges. Square. Had two removable waffle grids: grill surfaces were part of the appliance. Appliance performed well in baking and grilling tests, but the design had a number of features that were judged unsatisfactory. The handles were small and the thermostat control and the cord beneath them were in the way. The thermostat control was in an inconvenient location, and the markings were difficult to read. Excessive shock hazard was present on one of two samples tested.

Superlectric 116A (Superior Electric Products Corp. Cape Girardeau, Mo.) $12.95. Oblong. Excessive shock hazard was present on two samples tested; they were accordingly not given other tests and examinations.

Universal 3805 (Landers, Frary & Clark, New Britain, Conn.) $29.95. Square. Had four grids: two for waffles, two for grill. The grill of this combination appliance performed satisfactorily, but the waffles stuck to the waffle grids from the beginning and thereafter. Handle lifts to form foot for grill and presents a burn hazard and had exposed metal pins that became too hot to touch. Some shock hazard present under high humidity conditions.

Reprint on Fat in the diet

CONSUMERS' RESEARCH is now able to supply to interested readers and others, four-page reprints of the article, "Fat in the diet—Eating less of it, and choosing the right kinds, may lengthen your life." This is the article which appeared in the July issue of CONSUMER BULLETIN, and aroused great interest among our readers. Indeed, over 700 have written expressing their desire to read more about the relationship of overuse of fatty foods to health. There will be further discussion of the topic in future issues of CONSUMER BULLETIN.

Copies of the July reprint are available from Consumers' Research, Inc., Washington, New Jersey, at 10 cents a copy. (A lower price will be available for those who order 50 or more reprints at one time.)

Preparing your air conditioner for the winter

IN MANY HOMES, regular maintenance of one or more of the appliances and other devices is likely to be neglected. Yet a drop of oil applied as directed will often keep the appliance doctor away from your doorstep, and his very substantial bill from your mailbox. Unfortunately, few of us take the time to read the instruction book supplied with that new automatic washing machine, dishwasher, or air conditioner, or follow the advice of the serviceman who installs the appliance, if he gives any. And a year or two later, when the washer or conditioner comes to a clanking or grinding stop, or continues to "mote" but does not produce, we are prone to blame the manufacturer for our own neglect.

A room air conditioner is a rather unusual appliance because while it may continue to run very satisfactorily for years, its performance can be kept at its best only by fairly regular observation and some pampering. Strangely enough, the more time you spend in keeping the machine clean inside and out, and properly supplied with electricity, the cooler will be its attitude toward you—and the fewer bills you will have to pay for service.

Most of the instruction books that are supplied with air conditioners include a section on maintenance, in which brief but specific advice regarding proper care is given. While there may be slight variations in construction among the different makes, the following items are usually pertinent. Early spring is usually suggested as the time to do the job:

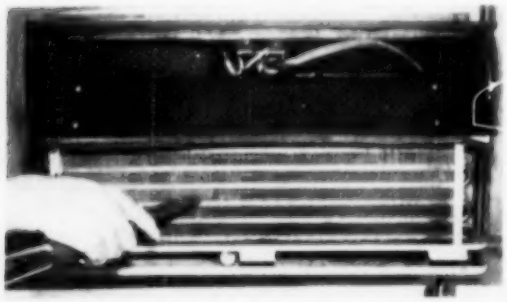
1. First, unplug the electric cord, then remove the "works" from the protecting case and set the assembly on the floor. (This is a two-man job.)

2. Clean both the evaporator and condenser coils thoroughly with a suitable vacuum cleaner attachment or brush. Be careful not to bend the thin aluminum cooling fins.

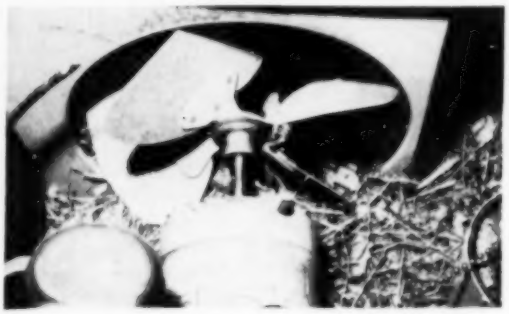
3. Remove the air filter and replace it with a new one, if it is of a non-permanent type. If it is of the so-called permanent type, follow the manufacturer's instructions regarding its rehabilitation. Never operate a conditioner with a dirty filter or assume that it will be desirable to remove the filter entirely. The filter not only removes dust from the air, but prevents that dust from being deposited on the evaporator coils and other parts of the machine where it definitely is not wanted, and can do much harm. A clean filter is as important to the efficient working of an air conditioner as is the proper functioning of the motor-compressor unit.

4. Check to the book for instructions on oiling the motors. Practically all motor-compressor units are factory sealed and require no lubrication. Many of the fan motors, however, do require oiling; if there are two fan motors in your conditioner, remember to oil both of them. If the instruction says apply five drops, don't assume 10 drops will do twice as much good. An excess of oil can cause trouble.

In addition to the foregoing basic points, there



Both the evaporator coils—shown above—and the condenser coils should be cleaned at least once each year with the proper vacuum cleaner attachment or a suitable wire brush.



The need for constant maintenance and inspection is evidenced in the photograph at the right showing debris deposited in a conditioner at CR by one of our fine-feathered friends who apparently squeezed through the outside louvres several hundred times in the process of building a nest.

are several additional hints which may be helpful with regard to the general cleaning-up job on your conditioner.

1. If your conditioner has a plastic front or grille on the room side, use water with a mild detergent to clean it. Use a damp but not soaking-wet sponge or rag. Dribbling water can cause a lot of trouble if it runs into a control switch, for example. Do not use scouring powder, furniture polish, or a solvent, such as carbon tetrachloride, for cleaning plastic, rubber, or wiring.

2. While you have the "insides" on the floor, wipe the dust and grime from the motor frames, compressor, and other parts.

3. Check the hose and channel or indentation in the base which carries condensed moisture to the condenser-fan area. Both should be clean and free of dirt or other possible obstacles which would block the free flow of the water that condenses on the evaporator.

4. Examine the whole interior for signs of rust or other deterioration. If rusting has started, scrape or sand the area and then apply a coat of good rust-inhibiting paint. (One manufacturer recommends *Rust-Oleum.*)

5. Check all dampers and other sections where there is an air passage between the "indoor" and "outdoor" sections. Good fits and adequate weather seals are essential, particularly in cold weather, to keep out cold air. Seal any cracks or slits you find with a caulking compound. *Mortite,* found at almost any hardware or building supply store, is convenient to use and satisfactory for this application.

Most air conditioners are constructed to resist the ravages of a hard winter. There is, therefore, no great need either to put them in storage, or to cover them if not stored. The use of a canvas or plastic waterproof covering over that part of the cabinet which is exposed to the winter weather, however, may be somewhat helpful, particularly in some coastal areas. One manufacturer, on the other hand, questions the need for covers, pointing out that free circulation of air in the compressor section should result in a lower humidity around the electrical components than would be present with a cover, and on that account, considers that good ventilation of the working parts will be favored by not using a cover. As far as we can tell, it's pretty much a toss-up between using a conditioner cover in the cooler seasons, or not using one.

If you prefer to store your conditioner for the winter, try to lay it in a horizontal position, just as it is installed in your window. If it is necessary to store it "on end," the motor compressor may need to be fastened to the base with bolts and special care will need to be taken not to bend the thin aluminum fins of the condenser. The original shipping container, if it was retained and is in good condition, is likely to provide the most satisfactory package. Store the conditioner in a cool, dry area, not on a wet or damp floor of the basement or cellar, nor, on the other hand, in a very hot place.

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BONUS: CALL FOR YOUR SERVICE CONTRACT NOW AND GET FREE THE 10-POINT SPECIAL AND A BRAND NEW FILTER.

Extra Bonus: ALL SERVICE CONTRACTS SIGNED NOW WILL BE EXTENDED TO APRIL 1, 1958 AT NO EXTRA CHARGE

The charges may be higher in your locality, but the above is an example of the services offered and charges by one service organization in the New York area.

Now. . . . . .If you have just gone through a siege of painting 21 storm windows or spent the last four nights trying to fix the family car and just don't want to bother with the air conditioner, consult the yellow pages of your telephone directory for the number of a reliable air conditioner service organization. Without doubt, the serviceman who answers will be more than willing to take over the chore, either on a one-time or a yearly basis for from $3.98 to $49.50. It will be well to talk to him a bit about what he will do, and his charges, before inviting him to call. For the higher figure, he should not only store your unit for the winter and reinstall it in the spring, but should give it a going over and make any needed repair or renovation, and supply service until it's time to store the appliance again next winter.

Gas Explosion Injures 3, Damages Queens Building

ROCHESTER, N. Y., Jan. 10 (U.—A two-and-a-half-story frame dwelling exploded today and damaged two adjacent houses in [redacted], a twenty-year-old residential development in the northwestern section of the city. Total damages were estimated at more than $30,000. The structure was completely destroyed. There were no injuries. The occupants, Mr. and Mrs. [redacted] and two adult relatives were all at work when the blast occurred. Occupants of the two adjoining dwellings, the officials said, fled to the street unharmed. The explosion, they said, "probably was caused by an accumulation of escaping gas which finally reached a pilot light."

PAVEMENT COLLAPSE BREAKS A GAS MAIN

Home Gas Explosion Brings Injury To 9

MT. JOY, Pa. (UP) —Five persons were injured and a two family home was wrecked Sunday when a pocket of natural gas seeping from a basement tank was ignited by a cigarette lighter.

Family Absent, Gas Blast Wrecks Home, Rocks Area

State Police Post Gas Blast Hurts 6

CLARKSON, N. Y., July 19 (U.—Three state troopers and three other men were injured today when a gas line exploded just outside the state police substation in this community, fifteen miles west of [illegible]

State police said the explosion occurred when a work crew accidentally cut the natural gas line leading to the two-story frame substation. The crew was

[redacted] 18 in critical condition in St. John's Hospital today as a result of the blast that killed a baby, injured four other persons and wrecked three homes.

BLAST INJURES WOMAN

Queens Home Badly Damaged by Gas Explosion

A gas explosion yesterday afternoon in a home at [redacted] Woodside, Queens, badly damaged the two-story dwelling and critically injured the only occupant, Mr. [redacted]

[redacted] was due to re-

Gas Fumes Explode In Nazareth Home

Gasoline fumes exploded in the cellar of a Nazareth home yesterday afternoon when they were ignited by the pilot light of a gas hot water heater.

Ruins Probed After 7 Die In Illinois Blast

ROSELLE, Ill. (U — Authorities investigated the shattered ruins of a two-story brick hardware store-apartment building which exploded and burned yesterday, killing seven persons and injuring nine others.

The noontime blast and flash fire, which police said apparently was caused by leaking gas, littered rubble through the business section of this northern Illinois town of 1,000.

Police Chief Gerald Young said Public Service Co. employes were drilling post holes in the area and that they drilled through a gas main in front of the hardware [illegible] He said repairmen from [illegible]

Says Gas Valve Turned On By Error In Utah

SALT LAKE CITY (U—A state official says someone turned on a gas valve late Sunday or some time Monday, unwittingly dooming 15 persons who died when the Lariat Cafe blew up Monday evening at Monticello, Utah.

Is your home in danger?

Conditions arising in the pipe lines that carry gas into your home may be the cause of a disastrous explosion

A FEW SIMPLE CHANGES that may be simply and inexpensively made may mean the difference between safety and disaster in your home. Utilities will hesitate to make, at the total cost of millions of dollars, changes covering equipment on the premises of many thousands of customers. The responsibility for even reasonable safety in the use of gas for fuel thus very often rests with individual consumers, who may be required to make the necessary outlays themselves for safeguards that would be better provided by the utility company.

The general use of natural gas is so new that the best possible safety standards for its use have not been fully developed and adopted. Even engineers who are experienced in the distribution and handling of manufactured gas commonly fail to appreciate vital new problems of safety that have been introduced with the coming of widely distributed natural gas. The problem exists particularly in the northeastern states where the now extensive use of natural gas dates back only to 1946. As a result of certain properties of natural gas not sufficiently anticipated, there have been an alarming number of fires and explosions, many of which could have been averted by suitable precautions by the utilities to adapt the new fuel to existing conditions.

By far the most signal difference between manufactured and natural gas is the extremely high pressure at which the latter originates. Manufactured gas is made in an almost pressureless system, and unless the pressure is purposely boosted for transmission over a considerable distance, it is virtually impossible for more than a relatively few ounces of pressure per square inch to develop in the home; in contrast, natural

gas transmitted over great distances is usually carried at a pressure of about 700 pounds per square inch; this pressure is several times that used in most industrial high-pressure steam boilers, and is several thousand times the safe pressure limit of domestic distribution systems.

In delivering natural gas for household and commercial uses, the pressure must be reduced to the requisite few ounces per square inch through a series of mechanical reducing devices. The industry has gone on the theory that these devices are uniformly reliable and safe, but they do of course fail from time to time, and their failure can have very serious consequences and bring death and destruction to many. The existence of this hazard is no mere conjecture, as has been most unfortunately demonstrated. For example, in Brighton, N.Y., a residential suburb of Rochester, the failure of supposedly safe reducing-valve equipment admitted gas at 25 pounds pressure to the area and resulted in the death of three people, injuries to some 30 others, the destruction of 19 homes, and serious damage to 25 additional buildings. As soon as the damaged main regulator station allowed this greatly augmented pressure to reach the distribution system, piping and appliances within the homes proved utterly incapable of containing it. As a result, pilots either flared into torch-like flames roaring to a height of two feet or more or were blown out with an escape of disastrous amounts of gas into the house; some stove burners lighted even though the gas was shut off; flames came out of automatic water heaters and completely enveloped their tanks; and furnaces which were shut down because of the mild weather flared into life. The most serious damage, however, resulted from failure of numerous gas meters; these, being made of soldered tinned sheet metal, blew out, filling the homes with an explosive mixture of gas and air. Yet, despite this experience, identical methods of distribution still exist in thousands of other localities, and the distributors of the gas are apparently assuming or hoping that the type of accident described will not occur again.

Following the Brighton disaster, both the National Board of Fire Underwriters and the United States Bureau of Mines recommended individual service regulators and emergency vents to provide a secondary defense against excessive pressure; they both also recommended readily accessible curb shut-off cocks, all to be located on each consumer's premises. In the almost complete absence of regulation on a compulsory basis by state, city, and county authorities, such safety precautions have been disregarded by all but a negligible number of utilities. It is thus incumbent upon the consumer to insist upon such safeguards as a prerequisite to accepting gas service, or if he cannot obtain them, he must arrange for their installation at his own expense.

A second danger in the use of natural gas results from its dryness. A preponderance of all street piping (laid originally for manufactured gas) consists of short lengths of cast-iron pipe sealed at the joints with organic packing. Manufactured gas usually contains sufficient amounts of oily substances to moisten this packing, and thus to provide a degree of resistance to leakage; natural gas, lacking such oils, allows the multitude of joints to dry out and leak. While utilities attempt to compensate for this dryness by

"fogging," or spraying oil into their gas, the results are not always satisfactory, particularly in areas remote from the point of fogging. Proof of this hazard is contained in recent annual reports to the Pennsylvania Public Utility Commission wherein 10 companies distributing manufactured gas show an average system leakage loss of 6.9 percent; the leakage loss for 13 companies distributing natural gas or propane was 25.4 percent. The high loss by leakage speaks for itself as to the seriousness of the hazards.

Gas that escapes from joints that have become leaky, under the street surface, tends to find its way into cellars through crevices and openings along the utility pipe lines that enter houses and commercial buildings. This type of leakage may occur with any kind of gas, but the danger is more pronounced with natural gas. In Philadelphia, a three-story brick building was completely leveled last spring, with five killed, when gas from a street leak accumulated in a cavity and found its way into the cellar; in Pittsburgh, the breakage of a street main due to an automobile accident caused a fatal explosion in a house that was not even piped to the gas mains. Another explosion in a new residential development in Pittsburgh led to the recommendation that all underground service and sewer lines be run through a short well open to the atmosphere so that any gas tending to follow the pipes into the houses would be vented.

While the gas utilities themselves have the primary responsibility for leaks under the streets, the public has responsibility for seeing that there is proper regulation by the state and local authorities having jurisdiction. For the most part, municipalities and states do not make any effective attempt to regulate the distribution of gas from the safety standpoint despite the hazards that have been so frequently and destructively demonstrated.

A further danger in the use of natural gas results from the fact that in its normal state, it is odorless. While many utilities now resort to the addition of artificial means to produce a strong, unpleasant odor in the gas, the added odor tends to disappear in long and complicated distribution systems, and to be filtered out in underground leaks. In Long Island, several members of a family were killed by leaking gas which had been rendered odorless by filtering through sandy soil. As odor is the only safe warning of leakage, any flow of gas without an accompanying odor (for example, from a burner on a gas range) should be reported to the gas company, and next, if action is not taken, to the public utility commission. A gas which does not carry a distinct, easily recognized, and unpleasant odor should not be distributed to consumers' homes or to factories or offices.

Appliances can be a source of danger to consumers as a result of a changeover to natural gas. The United States Bureau of Mines has said that, in many instances, the readjustment of appliances previously used with manufactured gas has not been adequate or satisfactory.

Clearly, city and state authorities that give permission for conversion to natural gas should write in a strict requirement that a consumer should be protected by the gas company in the ways indicated whenever replacement of equipment is necessary. This means that when a changeover is made, authorities should require that new burners and other parts involved should be furnished and the gas company should not be permitted to make conversions by simple mechanical modification of existing parts. In one instance, a dentist was burned to death by malfunctioning of a propane-burning gas water heater which had been "converted" improperly.

Safety in the home is one factor with which the homeowner dares not compromise. Gas explosions, which often occur with little or no warning, can be terribly dangerous. They do not give the consumer a second chance. If he is to be safe, he should take the suggested steps to guard against excessive pressure; to prevent entrance of leaking gas from the street into his basement or cellar; and to guard against possibility of asphyxiation, fire, or explosion through the leakage of gas which lacks a distinctive odor. Any erratic or unsatisfactory performance of a gas appliance should be regarded as calling for investigation, and steps taken to obtain immediate correction through a call to the proper authorities in the gas company.

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Discount houses

HUGE SHOPPING CENTERS are springing up all over the country with ample parking lots where the family can drive up and purchase the week's supplies of groceries, restock current clothing needs, buy the household drug and toilet supplies, stop in at Woolworth's for a few novelties and look over the latest models of refrigerators, ranges, television sets, and radios in an appliance shop with their next big outlay in mind. Family shoppers are more interested in large displays of merchandise from which they can make their choice and take it away with dispatch and convenience than they are in the more elegant displays and attractive surroundings of big city department stores and exclusive shops.

To understand the popularity of discount buying, it is also important to get a clear picture of the so-called fair-trade restrictions and what they mean to the consumer. Under the anti-monopoly provisions of the Sherman Act, manufacturers are forbidden to fix prices. An evasion of these restrictions is permitted by the Miller-Tydings Act and the McGuire Act giving manufacturers the right to set minimum resale prices for their products that move in interstate commerce. Retailers are not permitted to sell particular brands to the consumer at less than the fixed prices. Most of the states have reinforced the legality of resale price maintenance by passing their own fair trade laws modeled on the federal statutes.

The theory advanced for legally justifying price fixing is that a manufacturer has a duty and a right to protect the value of his trademark, which would allegedly be damaged if some retailers sold a product bearing it at too low a price. At one time, if a manufacturer signed an agreement with only one retailer in a state he was permitted by the fair trade laws to enforce resale price maintenance of his products *on every other retailer in the state who handled them.* In 1956, however, the Supreme Court of Louisiana ruled that minimum price contracts by the manufacturers and retailers could not bind merchants in Louisiana who had not signed resale-price agreements with the manufacturers. Other states that have held non-signers' clauses to be invalid include Arkansas, Colorado, Michigan, Florida, Oregon, Georgia, and Utah. The entire law has been ruled invalid by high courts in Nebraska and Virginia.

One of the largest manufacturers that endeavors to enforce fair trade fixed prices for its products is General Electric. Currently GE is

appealing a ruling by the U. S. Court of Appeals that in effect upholds the right of Masters Mail-Order Company to advertise and sell GE products by mail in New York State below GE's established fair trade prices. The mail-order company is a subsidiary of the New York discount house and operates out of Washington, D. C. The outcome of GE's appeal to the Supreme Court will be watched with interest by discount houses and their customers.

Small dealers understandably favor so-called "fair trade" because it enables them to compete more easily with larger merchandising outlets that can operate successfully with a lower markup because of their great volume of sales. Where small retailers exert considerable influence in a particular field they are likely to force a manufacturer to fair-trade his product because otherwise, as one dealer put it, "that brand will disappear under the counter." Drug products and toilet goods are extensively fair-traded. In addition to General Electric, other companies that support fair trade vigorously include Sunbeam Corp., Casco, Toastmaster, Omega Watch Company, and many drug and cosmetic firms.

When the supply of commodities coming off mass assembly lines outstrips consumers' ability or inclination to purchase them through regular retail channels at customary prices, there is always an enterprising dealer who will take a lower profit and sell for less, to move the merchandise. The public quite naturally favors low prices and will patronize such merchandisers. Stimulated by this support, merchants with a talent for selling a tremendous quantity of various commodities at low prices have sprung up all over the country. Although there has been some attempt to create the impression that they are disreputable, illegitimate "pineboard operators," they are coming to be recognized as having an established and useful function in mass merchandising, especially of appliances.

In Chicago, discount houses are given a run for their money by the leading department stores which also cut prices and will even bargain with prospective buyers. As a matter of fact, it is getting to the point where it is hard to tell a discounter from any other type of retailer. One definition currently offered of a discount house is "a retailer whose key policy is to sell well-known lines of merchandise consistently at cut prices." The items typically handled are cameras, furniture, clothing, silver flatware, toys, fountain pens, TV sets, and air conditioners.

Masters, Inc., defines a discount store as ". . .a streamlined, low cost, fast turn-over, high-unit-volume-with-low-margin operation in pre-sold, nationally advertised, first quality, guaranteed brands." Mr. Masters explains his growth on the premise that the discount house is an extension of the do-it-yourself movement and he has simply translated that trend into a merchandising technique based on the fact that informed people are pre-sold on national brands. Since they know what they want when they come in to buy, they do not need to be sold. Masters operates on the theory that the person who pays cash for a product and carries it home in a factory-sealed carton should get it cheaper than one who has it delivered or who buys on credit.

Established appliance shops at first tried to ignore the discounters' competition. As one trade journal reported it: "suburban dealers. . . threw customers out rather than give a discount." Increasing prices and bargain-minded consumers who were willing to spend a part of their weekends shopping for discounts, however, brought about important shifts in buying habits. The stores with fixed price policies sat tight and waited for the discount craze to pass or the discount house to fail, but at long last have been obliged to recognize that the discounter represents an entirely new technique of merchandising that has been put into effect by the shopping center, the family automobile, and late evening closings. Many department stores now admit privately that in their appliance departments there is no such thing as a fixed price and even smaller dealers very commonly bargain, under the counter as it were, with shrewd shoppers.

The consumer should be warned that price reductions on name brands often serve as a "come-on" and he should not expect to realize substantial savings on all items sold by the discount houses. The discount dealer quite frankly uses advertising of well-known brands at low or reduced prices to bring in a large number of interested customers, and he also hopes to sell them more profitable merchandise, either higher-priced appliances, or no-name or less-well-known brands, and "soft goods," on which the markup is higher. Close-outs, job lots, and bankrupt stocks are favorite sources of supplies.

The ability to buy in carload lots at frequent intervals admittedly gives the high-volume operators an economic advantage over the small dealer. E. J. Korvette is reported to be operating on a margin as low as 5 percent on appliances. It is estimated that about 40 percent of Korvette's business has been "hard goods," i.e., appliances, but last spring a spokesman admitted that plans were being made to step up the volume of "soft goods" to something like 75 percent of the sales of the new Brooklyn store. The markup on textiles is higher than on appliances—

and, it might be noted, comparison shopping is more difficult.

In buying textiles and clothing consumers will probably do better by shopping at Sears or J. C. Penney, both of which have good laboratories that do some basic work in testing, checking, and setting up standards and specifications for various items. True, a store's buyers are not necessarily guided by the laboratory's findings and advice, but there is at least a frame of reference and the dissatisfied consumer can often obtain a refund on unsatisfactory purchases.

Deciding just how much of a bargain is being offered by a discount house on some particular item is sometimes difficult. The National Better Business Bureau and the Federal Trade Commission have put on vigorous campaigns against fictitious list prices in advertising and selling major appliances. Several hosiery concerns have been ordered by the FTC to stop preticketing their merchandise with fictitious retail prices that were far in excess of the regular price at which their men's socks were normally sold. Broadloom carpet, air conditioners, and a national clothier have all been subject to FTC proceedings for misrepresenting "regular" prices.

In New York City a reporter noting the price tag of $71.50 on a well-known watch in a jeweler's window went in and asked him what the real price was. The jeweler admitted that it was actually $34.

The Better Business Bureau of Santa Barbara, joining in the national campaign to combat the use of false or unverified claims regarding "value," "former price," "made to sell for," and "nationally advertised price," reported several instances of merchandise at a grossly inflated price advertised in a national magazine such as Life on a "one-shot" basis so that it could be ticketed "As advertised in Life. . . ." An advertisement for a power lawn mower in a trade paper read: "Advertised in Life—Saturday Evening Post. List price $124.95. Can retail with full markup as low as $59.95." The prospective purchaser is apparently impressed with the claim that he is getting a substantial reduction, whether it be from a discount house, a department store, or a regular "franchised" dealer.

As the discount houses have become established, the gap between their prices on one hand and those of department store and appliance dealers on the other is narrowing. In competing with discount houses, some dealers, including department stores, use trade-ins on a large scale. The allowance made on a used appliance often has no relationship to its real value or serviceability; it will vary according to the dealer's desire to make a sale. When business is good a trade-in value is likely to be smaller than when things are slow. The discount houses too are compromising with their earlier technique of "pay your money and take it away." The more successful discount houses offer servicing facilities and delivery service to be paid for as extras by the purchaser. Return privileges and credit are also available from certain discount houses.

In coming to a decision on whether to make a purchase at a discount house or from a local dealer the question of service, particularly the in-service one-year warranty customarily given with large household appliances, must receive careful consideration. Consumers should realize that this is not free. It is included in the selling price as a kind of insurance fee to cover the warranty period. If it is not paid for, the purchaser is, in a sense, making a bet that no trouble will develop the first year. The allowance for in-warranty service customarily runs from $7 to $20 depending on the appliance purchased.

Where discount houses do not furnish service, the purchaser should expect to get the service allowance in the form of a lower price. If he is unlucky and gets an item that needs some adjustment, or a new part or expert attention, he will undoubtedly wish he had dealt with a local dealer noted for competent and obliging service. There are few things so trying to the disposition and patience, and sometimes the pocketbook, as getting service for a balky appliance that has been purchased from a discount house or a cut-rate dealer. Local servicemen who are factory-authorized repairmen for the particular make purchased at a discount house may be forced to attend to some adjustment or repair under the terms of the warranty, but they will not be happy about handling a job for which they have not been reimbursed as they would have been if their shop had made the original sale. In such case, it is quite possible that whatever savings have been made on an appliance where service is important, particularly an automatic washer and dryer, an air conditioner, or dishwasher, will be used up in extra service charges.

The service angle is always an important one for the discriminating shopper to consider. There may be bargains to be had at the discount house, but it is well to remember that "caveat emptor" is still a useful maxim to keep in mind. If you do not know your merchandise and exactly what performance to expect, how to handle the installation and where you must go for service, you will do better either at a department store where you have a charge account or at the store of an established local dealer with a good service personnel and a good record for efficient repair.

SHOTGUNS

Single shot • bolt action • pump action • gauges • shot size • pattern density • choke • secondhand guns

A WELL-MADE SHOTGUN is a graceful and finely-wrought mechanism, as is a fine rifle, but because of the nature of the shooting it is usually used for, a shotgun is seldom aimed, as a rifle is. Rather, a shotgun is *pointed*, somewhat as a finger is pointed. It is especially important that a gun should *fit* the user and, that when it is thrown to the shoulder for a fast shot, it should line up naturally on the intended target. Since fit is a function of the length, drop, butt pitch, and comb thickness of the stock, it is obvious that a gun which fits a slim six-footer would never do for a stocky five-footer. The expensive, custom-built weapon may feature a stock tailored for the individual buying it, but the ordinary production model has a stock that is necessarily a compromise and may or may not be suitable for a particular shooter. It is recommended that the prospective purchaser try the "fit" of a number of weapons, if for no other reason than to observe the differences, and if he is a novice, he would be wise to secure the advice of a competent shotgun fancier before putting his cash on the line. It is particularly important to seek such counsel if the shooter is investing a considerable amount.

The beginner at upland-game or waterfowl hunting or, for that matter, the more experienced shooter planning to advance to a gun which seems better suited to his purposes will find a wide assortment to choose from. He has available any of a dozen or so domestic makes, several of which have from three to five models, and several foreign brands that are now being imported. The first problem of choice is to select the gauge and choke best suited to his purposes.

Gauges

The 12-gauge is the one most generally accepted, and loads are available which make it practically the equivalent of the heaviest 20-gauge at the light end of the range and the regular heavy (not magnum) 10-gauge load at the heavy end of the range.

The 16-gauge probably is the second choice for the "all-around" gun, although its range of loadings is so wide that it can cover all but the heaviest of the loads almost as well as the 12-gauge, and the 16-gauge gun is usually somewhat lighter to carry. The 20-gauge is a fine choice for small upland game, particularly for persons of slight build or persons sensitive to recoil. 20-gauge guns are light and fast handling, and definitely are not "pip-squeaks" if given proper loads.

Shot size

Killing range and killing potential are determined by such things as pattern density, shot size, and velocity. Many experienced hunters and researchers agree that the desirable shot sizes for various purposes are about as follows: for geese and turkeys, No. 2 to No. 6; for most duck hunting, No. 4 to No. 6; pheasants, grouse, rabbits, and squirrels, No. 4 to No. 7½; doves, quail, No. 7½ to No. 9.

Many shooters make it a practice to use the heaviest loads obtainable for all shooting. While

N175

these loads are desirable for long-range waterfowl hunting and for heavy birds and animals such as turkeys or foxes, they are unnecessarily expensive and punishing for use on lighter birds and smaller mammals. Excess power is not necessarily a virtue.

Pattern density

Pattern density might be defined as the number of shot striking on or within a given area on the target.

Generally, the larger guns give more uniform patterns than the smaller ones when large shot are used. Thus the .410 usually patterns best with shot no larger than No. 6 and more often than not does better with No. 7½. A 12-gauge or 16-gauge usually can be depended on to do at least a fair job, with No. 4 or smaller. With BB or buckshot, a more open-bored gun may throw a better pattern than a full-choked one.

The only sure way to tell what a particular weapon will do is to "pattern" it at some desirable range by firing at a blank sheet of paper, using various loads that fit the general purpose in mind, and determine by actual trial which load gives the best results. For larger bores, a 40-yard range is considered a standard testing distance, while 30 yards may be more suitable for the 28 and .410 gauges. Several trials with each combination are necessary to arrive at any reliable conclusions.

Choke

The term "choke" refers to the degree of constriction at the muzzle of the gun.

Present usage usually defines a full-choke barrel as one which will put from 65 percent to 75 percent of its shot charge in a circle thirty inches in diameter at a range of forty yards, while a "modified barrel" should do the same with from 45 percent to 55 percent of its charge. By similar standards, an "improved cylinder" bore should get from 35 percent to 45 percent hits in the 30-inch circle and the "cylinder" bore should give from 25 percent to 35 percent. Other classifications sometimes are used, such as the "improved modified" which is expected to fall between the effects of the modified and full-choke barrels.

Secondhand guns

In many localities it is possible for a prospective gun purchaser to find some real bargains in the racks of dealers in secondhand weapons. The "gun nut" who decides he must have something different usually trades in or sells his unwanted equipment at a considerable sacrifice and the individual who knows what to look for may be able to pick up a valuable gun at a very reasonable price. Regardless of its clean, flowing lines and the low prices asked, no shotgun with Damascus or twist steel barrels should be purchased for any use more important than decoration for a den, and, if it is bought for that, it should be tagged to warn against shooting with it. Old barrels of the type named are very dangerous to use with modern high intensity loads and it would be a rare shooter indeed who would care to limit himself to black powder shells, even

if they were available commercially—as they are not. Bearing in mind the need of avoiding old-fashioned guns meant for black powder loads, the man in need of a shotgun will do well to look over the secondhand supply before investing. He should deal with a reliable store or have the advice of a competent friend if he is not well-enough informed to judge values for himself. A good gun does not go out of style, and it will, with normal use and care, last for generations.

Single-shot models

While these guns, located at the bottom of the price range, may be satisfactory for the wandering trapper, or for a farmer to lean back of the woodshed door in hopes of a quick shot at a chicken-killing varmint, and may be indicated for the less affluent user by the economics of the situation, they are not recommended for the average sportsman. They are reliable enough, and they may show patterns as even as those of the best imported models, but some of the single-shot guns, at least, lack the balance and pointing qualities necessary for effective shooting at running or flying targets. They usually are supplied only in full-choke boring, which definitely is not the most satisfactory for all-around use with a gun of this type. (Lest someone take issue with these statements, it should be added that these criticisms do not apply to the very fine, and expensive, weapons made specifically for trapshooting.) If, in spite of other considerations, the single-shot gun must be the choice, the average user should attempt to get one with "modified" or "improved-modified" boring if it is in one of the larger gauges. Full-choke barrels may be indicated for the .410-gauge gun. There is no real advantage in the very long barrels sometimes advertised, and a 28-inch barrel is a good choice.

Bolt-action shotguns

Guns of this type that were tested were judged to be satisfactory for the occasional hunter or trapper whose use or abuse of a weapon is such that it would be folly to buy an expensive gun. Bolt-action guns are not recommended for left-handed shooters. Clip magazines, with which all but the *J. C. Higgins* were equipped, are known to be a source of trouble sometimes in loading or functioning, although difficulties on this score were not encountered during the tests. The clips protrude at or near the natural balance point and make carrying in one hand uncomfortable. Operation of a bolt-action gun is considerably slower than operation of a pump gun, particularly in the hands of an inexperienced shooter who must remove the gun from the shoulder to work the action.

It is felt that none of the bolt-action guns tested warrant better than a "*B*" rating and that the selection among them can be largely a matter of personal preference. A prospective purchaser should examine at least two or three of the bolt-action models available and select the one which feels best or has other features that he prefers. Recoil pads, with which some were equipped while others were not, cost from $3 up installed, and cheapest adjustable chokes add from $3 to $6; these items should be taken into consideration when comparing prices.

In spite of their rather awkward appearance, as compared to the more expensive pump and semiautomatic guns, all the bolt-action guns pointed fairly well when used on thrown targets.

Unless otherwise noted, the guns listed in this article are 12-gauge in the plain grades, without special accessories, equipped with 28-inch modified choke barrels.

B. Intermediate

J. C. Higgins, Model 583.20 (Sears-Roebuck's Cat. No. 6—098) $32, plus freight. Equipped with modified choke and recoil pad. The only bolt-action shotgun tested with a 5-shot tubular magazine giving a total of 6 shots available. Magazine can be loaded only when bolt is open (undesirable). The action was somewhat rough and required more force to operate than any other gun of this type tested. Patterned well with No. 7½ shot; fairly well with No. 4 shot. Location of the center of impact with respect to aiming point, satisfactory. Functioned well in tests. Workmanship and finish, fair. Weight, 7⅝ lb.

Marlin, Model 55 (Marlin Firearms Co., New Haven, Conn.) $36. Except for details of finish and stock material, this model was the same as *Western Field Model EMN175*. Location of center of impact, barely satisfactory. Finish of the metal and wood parts was good.

Mossberg, Model 195KA (O. F. Mossberg & Sons, Inc., New Haven 5, Conn.) $40, with ventilated variable choke and recoil pad. Two-shot clip magazine, giving a total of 3 shots. Action was somewhat rough but reasonably easy to operate. Patterned well with No. 7½ and No. 4 shot and with choke adjusted to "modified." Location of center of impact, satisfactory. Interior and exterior finish, fair to good. Weight, 7 lb.

Stevens, Model 58 (Savage Arms Co., Chicopee Falls, Mass.) $37. Supplied only with 26-inch full-choke barrel (modified choke is to be preferred). Two-shot clip giving a total of 3 shots available. Smoothness of action and ease of operation best of bolt-action guns tested. Patterned well with No. 7½ shot, reasonably well with No. 4 shot. Location of center of impact, not satisfactory. Workmanship and finish, good. Weight, 7¼ lb.

Western Field, Model EMN175 (Montgomery Ward's Cat. No. CO—175) $28, plus freight. Equipped with recoil pad. Supplied only in full choke boring which is not as desirable as the modified choke for general purpose use. Two-shot clip giving a total of 3 shots available. Safety indication not prominent, as it should be. Smoothness of action and ease of operation, fair. Patterned well with No. 7½ and No. 4 shot. Location of center of impact, not satisfactory. Finish of metal and wood parts, fair. Weight, 7¼ lb.

Pump-action shotguns

Pump-action or "slide-action" shotguns are likely to be the best choice for the average hunter, unless he is addicted to double-barreled guns or has physical handicaps that require the semiautomatic. In general, pump guns are strong, reliable, fast in operation, and easy to point. Because of the nature of their actions they, in common with the bolt and the semiautomatic, have a greater over-all length than a single-shot or a double-barreled gun having the same barrel length. Pump guns are available at a wide range of prices, starting at about $50 and ranging to well above $200 (without special engraving or ornamentation). While the pump gun may be at its best in the heavy, full-choke, magnum models used for long-range pass shooting at waterfowl, it is a versatile performer in any field.

A. Recommended

Ithaca, Model 37 (Ithaca Gun Co., Ithaca, N.Y.) $95. 4-shot tubular magazine. Push-button safety in trigger guard. Excellent light-catching front sight. Action smooth, and trigger release good. Feel and pointing characteristics on thrown targets, very good. Patterned very well with No. 7½ shot, and well with No. 4 shot. Center of impact at point of aim. Action release to unload cartridges from magazine, somewhat difficult to operate, particularly with cold or gloved hands. This gun is first choice of many experienced hunters. Either this gun or the *Remington 870* is a fine selection for upland game where weight is particularly important, but is rather light for trapshooting, or for waterfowl hunting where a great deal of shooting is done with very heavy loads, particularly for the shooter sensitive to recoil. Weight, 6¾ lb.

Remington, Model 870 (Remington Arms Co., Illion, N. Y.) $86. 5-shot tubular magazine. A plug weight is supplied to increase the weight for those who wish it, and to decrease magazine capacity to comply with waterfowl hunting regulations. Push-button safety in trigger guard. The action was very smooth, and trigger release better than most others tested. Feel and pointing characteristics on thrown targets, very good. Patterned very well with No. 7½ shot and fairly well with No. 4 shot. Center of impact, only slightly below point of aim. Easily field-stripped or dismantled. Metal and stock, well finished. Weight, 6¾ lb.

Winchester, Model 12 (Winchester Repeating Arms Co., New Haven, Conn.) $105. Tubular magazine on this sample plugged to three-shell limit. Button safety at rear of trigger guard. Action smooth. Feel and pointing characteristics on thrown targets, good. This gun, which was equipped with a 30-inch, full-choke barrel, gave a very good pattern with No. 7½ shot and a fair pattern with No. 4 shot. Center of impact at point of aim. Wood and metal work, well finished. Weight, 7½ lb. The *Model 12* is an extremely durable and dependable weapon with a record of many years of satisfactory service.

B. Intermediate

Stevens, Model 77C (Savage Arms Corp., Chicopee Falls, Mass.) $65.75. 5-shot tubular magazine. Button safety on trigger guard. The action was smooth, but trigger pull was too heavy (7½ to 8 lb.). Patterned very well with No. 7½ shot and well with No. 4 shot. Center of impact at point of aim. Feel and pointing characteristics on thrown targets, satisfactory. Solid frame (not take-down), which introduces difficulties in cleaning and transportation, and a loose and noisy magazine tube and slide are the most questionable features. Finish of metal and wood, above average. Weight, 7⅛ lb. In spite of its deficiencies, this *Stevens* may be a good buy for the hunter to whom the faults listed are not especially objectionable.

C. Not Recommended

Mossberg, Model 200KA (O. F. Mossberg & Sons, Inc., New Haven, Conn.) $53. 3-shot, clip loading. Equipped with rubber recoil pad and ventilated adjustable choke. The safety is a clearly indicated lever at rear of receiver. Operation, reasonably smooth and easy. Pointing and handling characteristics, fair. Pattern with No. 7½ shot, fair, and with No. 4 shot, good. (With choke adjusted to "modified," gave very open pattern; when set on "full," gave about a "modified choke" pattern.) Center of impact, 6 inches below point of aim, an undesirably large error. Clip magazine protruding below one-piece stock at point of balance makes carrying uncomfortable. Location of operating slide handle so far forward that it might be difficult for a small or short-armed person to operate from a normal shooting position. Functioned reliably during tests. Weight, 7⅝ lb.

Noble, Model 60 (Noble Manufacturing Co., Haydenville, Mass.) $75. 5-shot tubular magazine. Equipped with ventilated choke and rubber recoil pad. Push-button safety in trigger guard. Operation of action, satisfactory. Patterns were very open with adjustable choke set at what might be considered "modified," and fairly open when adjusted for maximum choke. Point of impact, 10 to 12 inches below point of aim. Trigger pull, long and creepy. Solid frame (not take-down) a disadvantage in transporting and cleaning. Finish of metal and stock, fair to good. Weight 7⅝ lb.

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Editor's note: A report on semiautomatic shotguns, an over-and-under gun, and a combination shotgun-rifle will appear in a forthcoming issue.

Stainless-steel cooking utensils

PEOPLE GENERALLY are concerned about the quality of the foods they cook, but few give thought to the utensils they cook them in. Nevertheless, it is in order to consider the effect, if any, that may result from a slight contamination of foods by the metal or other material of the container or cooking vessel in which they are heated or stored.

The materials from which pots and pans are made merit serious consideration, since different types of foods react differently with these materials. Unfortunately, there is no one metal, alloy, or ceramic material that fulfills all the requirements for what might be called an ideal cooking utensil. Consider, for example, an incident which happened not long ago, when 20 school children suffered from poisoning after drinking a popular home-mix type of soft drink that had been stored for several days in an enamelware container that happened to have been chipped.

It is extremely important, for reasons of health, that cooking utensils should not contaminate to more than the most minute and hardly detectable degree the food that is cooked in them. Even small amounts of metallic contamination in food consumed over a period of time might cause serious chronic illness. People have also been made ill by single portions of foods contaminated by metal coming from utensils used for cooking or storage. This is more likely when an acidic food is cooked or stored in the wrong kind of vessel. For example, large numbers of persons were made ill in two instances by eating apples that had been cooked in galvanized pails by persons not aware of the toxic properties of the zinc coating. In another instance, many quarts of gooseberries were cooked for canning in a galvanized pail, but fortunately came under suspicion, were sent to a chemist for analysis, and as a result of his findings were thrown away without being consumed.

Nowadays, stainless steel is among the most popular materials for cooking utensils. People prefer it because of its fine appearance and the relative ease with which it can be kept clean and shiny. There is a whole family of alloys that are loosely known as stainless steels. These vary in the percentages of nickel and chromium they contain, and they may contain small quantities of other elements such as carbon, molybdenum, manganese, and silicon. Utensils made of this class of alloys come in a variety of styles, some with chrome plating on the outside surface, some with copper bottoms, and some with a complete outer skin of copper. All have stainless steel as the interior surface which comes in contact with the food.

While stainless steels do remain cleaner and shinier with less attention than many other metals, they are *not*, strictly speaking, stainless or corrosion-proof. Certain acids which are present in foods will attack the surface, discoloring it, carrying some of the metal into solution in the food, and possibly etching the surface of the utensil in a way to be readily visible. When the steel becomes etched, it means that some amount, usually slight, of chromium and nickel

Figure 1—The picture at the center shows, by the strong contrast with the uncorroded area above it, how severely the inside bottom of an Ecko Flint-Ware pan was etched by the salt-food-acid test solution. The low magnification photomicrographs show the surface of the pan as it looked before being etched, left, and after being etched in the test, right. The magnification in both illustrations is about 27x.

has been dissolved and has been mixed with the food cooked in the pan. Ultimately, the metal-contaminated food is eaten.

Now—one might ask—so what? The answer is a simple one—chromium and nickel compounds are substances that one would never consume voluntarily; they are definitely toxic. Indeed, most metals are, but chromium and nickel, especially the former, are among the many metals that one should not consume in foods or drinks even in quite small quantities. Ingestion during a single meal of as little as 0.03 gram (about 1/1000 ounce) of a chromium compound, for example, may cause gastric (stomach) symptoms. In the last few years, a number of researchers have noted that chromium entering the body is in the category of substances that may be a cause of cancer. Certain very salty or acid foods, and such foods as rhubarb, sauerkraut, loganberries, most citrus fruits, and tomatoes may dissolve small quantities of nickel and chromium from stainless-steel utensils; with some pans, these quantities may exceed safe or tolerable limits.

The amounts of chromium, nickel, and other metallic compounds that can be consumed by a human being over long periods without harm are not known with any degree of certainty. CR's judgment in interpreting the test results and in rating the stainless-steel pans is based on a study of the best currently available information; availability of new findings from research carried on to set safe limits of contamination by chromium and nickel might require changes in the basis of CR's ratings. (We expect to conduct new tests in the near future on additional samples of stainless utensils.)

In tests to determine comparative resistance of stainless-steel utensils to food acids and salt, a solution containing four percent of tartaric acid, two percent of acetic acid (half the strength of vinegar), and two percent sodium chloride (table salt) was gently boiled in each pan for one-half hour. At the end of the boiling period, the solution was analyzed for chromium and nickel to determine how much had been dissolved from the utensils. Some of the pots were damaged noticeably from a single boiling using the salt-food-acid mixture, as evidenced by distinct etching of the surface of the metal and the considerable quantities of metals found in the solutions. The *Ekco Flint-Ware* pans exhibited the highest amount of chromium lost from the vessel to the solution in this test, as they did in tests conducted by CR several years ago.

Another striking observation made in this test was that different samples of the same brand of pan, purchased over a period of months from different stores, showed very large variations in the amounts of metal dissolved. In an effort to devise a simple test whereby the housewife can determine quickly and easily the solubility of the metal from which a particular pan is made, several common foods were boiled in new pans, and the resulting action on the surface of each pan was noted. It was found that foods, such as lemon juice, stewed dried apricots, and canned tomatoes, will cause excessive etching in a poor pan, and a slight degree of etching in a pan of relatively good quality. None of the stainless-steel pans tested were entirely resistant to the corrosive action of all food acids.

Figure 2—This picture of a Revere Ware stainless-steel lid illustrates the fact that stainless steel is not really stainless. The spots shown occurred while cooking apricots and could not be removed by thorough washing with a strong detergent solution.

It will be wise to test any new stainless pan which is bought by gently boiling canned tomatoes, or lemon juice for about 30 minutes, and then allowing the food to cool. If the pan should, by any chance, develop the etching effect illustrated in the pictures that accompany this article, or anything at all similar, it should be taken back to the dealer at once for refund. If the dealer will not take care of the matter, write to the manufacturer. You may at the same time wish to send to Consumers' Research a copy of your letter and of any reply which the manufacturer makes to your complaint.

In view of the startling degree to which some stainless-steel pans dissolve in acid-salt solution, and the harm possible from contaminated foods, CR considers it unwise to continue to use any stainless-steel cooking utensil which shows appreciable signs of discoloration or etching after a moderate period of use with acid or salty foods.

In order to minimize the danger that arises in the solubility of stainless steel, it is best not to scour pots and pans with coarse abrasives or scouring powder. Any scouring will of necessity remove small quantities of the harmful metals, and, unless the pan is washed and rinsed very thoroughly before it is used again, the loosened microscopic particles of metal may show up in otherwise harmless foods where they can dissolve to some extent because they are in a very finely divided state. If after a pan has been cleaned there is the slightest grayness or discoloration imparted to a clean white cloth rubbed over the inner surface of the vessel, then rinsing has not been sufficiently thorough to insure complete freedom from particles that may be at least slightly soluble when the pan is used again.

Another precaution which may help to reduce the amounts of metal dissolved in foods cooked in stainless-steel pans is to defer adding salt that may be needed until after the food is cooked, preferably until after it is removed from the saucepan.

The ratings which follow are based upon the relative resistance of the utensils to chemical reaction with boiling dilute acid and salt solutions of the kind likely to be present in cooking, as determined in the tests described. Since even the better pans showed some loss of chromium and nickel, no pan was judged to warrant a rating higher than *B. Intermediate*. Those pans which yielded relatively large amounts of chromium in the tests are not recommended. Prices in listings below include lids.

B. Intermediate

Bridgeport Copperware (Bridgeport Brass Co., Bridgeport 2, Conn.) $8.95. 1½-qt. stainless-steel pan with entire outer surface copper-clad. Loss of chromium and nickel to the solution, relatively low.

Farberware 811 (S. W. Farber Inc., 415 Bruckner Blvd., New York 54) $5.45. 1-qt. stainless-steel saucepan with aluminum-clad bottom. Best of all pans tested. Losses of chromium and nickel to the salt-acid solution used in the test, relatively low.

C. Not Recommended

Ekco Flint-Ware, No. 7611 (Ekco Products Co., 1949 N. Cicero Ave., Chicago 39) $6.95. 1½ qt. On one sample, the loss of chromium and nickel was greatest of any of the pans tested. Other samples showed less loss.

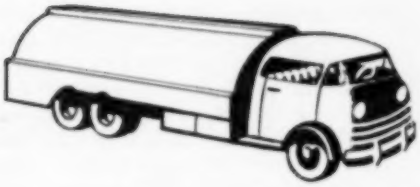
Revere Ware, No. 1401 (Revere Copper & Brass Inc., Rome Mfg. Co. Div., New York City) $4.95. 1-qt. stainless-steel pan with copper-clad bottom. Loss of chromium and nickel to the solution, somewhat higher than average.

Sears "Maid of Honor" (Sears-Roebuck's Cat. No. 11—2255) $4.70, plus postage. 1½ qt. Loss of chromium and nickel, relatively high.

Setting the furnace thermostat at night

MANY HOMEOWNERS have raised the question from time to time whether it is economical to lower the thermostat setting during the night. The conclusions given here were determined in a study made at the University of Illinois with radiant baseboard heating, and deal with the effect of reduced thermostat settings and open bedroom windows at night. It was found that reducing the thermostat setting at night but leaving all the windows closed resulted in a fuel saving of about 5 percent.

Opening the windows in a bedroom with the door closed and reducing the thermostat setting at night made no difference in daily fuel consumption as compared with the same home with the bedroom windows closed and the entire house maintained at 72 degrees at all times. When bedroom windows were open at night, it made no difference in fuel consumption for the house whether the bedroom radiators were turned off at night or not. Operating with the lowered thermostat setting and open bedroom windows at night, the morning warm-up time for the house was much longer than the time required when the bedroom radiators had been left on.



How much heat is there in the fuel oil you buy?

THE GRADE NUMBER of domestic fuel oil is generally understood to classify an oil in accordance with Commercial Standard 12-48, a "voluntary standard of the trade." That the U. S. Department of Commerce "records" and publishes this standard does *not* mean that the government's technical experts have given it close consideration and approval.

The Commercial Standard omits any requirement as to the minimum heat content per gallon of the various grades of oil. For grades 1 and 2, those mostly sold for household use, the standard, in effect, specifies a *maximum* heat content for each grade—possibly to discourage the supplier from giving the consumer too much for his dollar. The way in which maximum heat content per gallon can be inferred from the standard is somewhat technical, but worth consideration by the consumer who wants to learn to interpret misleading gobbledygook.

Heat content per gallon increases with density. *Maximum* densities are given in the Commerical Standards for grades 1 and 2. The densities are given in terms of American Petroleum Institute "gravity" in degrees, a number so defined that it goes *down* as density or specific gravity goes *up*. Only an engineer specializing in oil technology would be likely to understand that *minimum* "Gravity, °API" as shown in the Commercial Standard is essentially a number that determines *maximum* heat content per gallon of an oil. (Even the unabridged dictionaries do not define "degree" in the API sense.) A standard that works in reverse, as this one does, should be abandoned and replaced by something more rational and more easily understandable, a standard which would establish minimum levels of quality on the basis of characteristics of importance to users.

Grade 2 oil, the kind almost universally used for domestic oil burners, is supposed to have a density corresponding to a maximum heat content of 144,300 British Thermal Units (Btu) per gallon. Grade 1, a lighter kerosene-like oil, has a similarly specified maximum heat content of 138,800 Btu per gallon. However, a nationwide survey recently conducted by the U. S. Bureau of Mines showed that oils sold as No. 2 frequently had heat values so low as to be well below the maximum set for grade 1.

Since the heat content can be determined from the density of oil or from the "API gravity," it is quite easy for a consumer to test a sample of oil and determine its heat content with all needed accuracy. All that is required is a properly calibrated hydrometer (similar in appearance and principle to those enclosed in glass tubes capped with rubber bulbs and used to check storage battery acid or radiator antifreeze solutions) and a container to hold the oil in which the hydrometer is floated. For testing oil that is supposed to be grade 2, it would be wise to get a hydrometer with a range of about 20 to 40 degrees API, although some samples reported in the Bureau of Mines survey had lower densities (higher degrees API) than are included in this range. (A suitable hydrometer, Cat. No. 27734-B, and glass cylinder, Cat. No. 14500-3, can be obtained from Central Scientific Company, Mountainside, N. J.—offices also in other areas—for a total cost of $3.95, plus postage.)

The accompanying table gives Btu's per gallon corresponding to various API gravity measurements at 60°F. At any other temperature an error will be introduced, but for temperatures normally encountered, this will be small enough to be neglected. (If the gravity is determined at an oil temperature less than 60°F, the Btu value in the table will be a little too high, and vice versa.)

"Gravity" in degrees, API, at 60°F	Approximate heating value in Btu per gallon
20	148,100
25	145,000
30	141,800
35	138,800
40	135,800

Longer life for color slides

(Continued from page 2)

than are elevated temperatures, for overmoist storage conditions may promote fungus growth on the surface of the film. High humidity can also cause color change in some color films whether or not they are stored in the dark. The effect of high relative humidity is especially bad if it is accompanied by high temperature.

CR subjected three types of color slides to prolonged and continuous exposure to bright sunlight with half of each slide masked with opaque paper, in an effort to determine the relative resistance to fading of the dyes in these films. After fifty hours of exposure to sunlight (through glass), a *Super Anscochrome* and a *Kodachrome* slide showed slight though definite fading of the exposed portion; an *Ektachrome* slide showed no noticeable change. After 100 hours of exposure, the *Super Anscochrome* and *Kodachrome* were markedly faded in the exposed area and the *Ektachrome* slide showed just enough fading to be noticeable. The unexposed portions of each film were all subjected to the same temperature and humidity; both were fairly high owing to the summer weather at the time. The *Super Anscochrome*, which showed the greatest change due to light exposure, had the most strongly saturated colors to begin with (this may be the reason the change in color seemed so great, compared with the other films).

The tests bear out the fact that color slides of any make should be protected from light so far as possible. Slides should be stored in a dark location or at least not left lying about where they would be exposed to strong light. The location should, moreover, be one in which the films will not be subjected to high heat and humidity. In most cases the best location will probably be on the main floor of a home, for top floors are usually hot and basements are often damp. Too little humidity is bad for the film also, for it may render a film brittle; and brittleness can be a great disadvantage, especially with motion picture film. Ideal conditions for storage of film are a temperature of of 70°F or less, and a relative humidity of about 50 percent. In locations where a relative humidity indoors of over 60 percent is common, it may be advisable to build a moisture-proof storage container. Film stored in such a container can be kept in its own low-humidity atmosphere by the use of a drying agent such as calcium sulfate (*Drierite*), *Alcoa Activated Alumina*, or silica gel (*Dri-Pax*, *Dry-rox*, or *Protek-Sorb*). As noted before, certain acidic gases may cause slow fading of the dyes and for this reason color films should never be stored with or close to nitrate-base black-and-white positive film or negatives, for this type of film may give off an acidic gas as it decomposes. (Some nitrate film is still being sold, but the type is very dangerous from a fire hazard standpoint and should not be stored in the home or office.)

Never store color films in a drawer, trunk, or chest containing one of the widely sold moth-control chemicals (dichlorobenzene or equivalent).

To minimize fading, projection time greater than one minute should be avoided. Never remove the heat-absorbent glass from the projector and never use a lamp of higher wattage than that recommended for the particular slide projector. If you do, you run the risk of ruining your film.

Things to remember when you're "shopping" for a meal

The restaurant and the employees' hands and uniforms should be clean, and there should not be a smell of hot grease. The odor of hot grease means that a high proportion of relatively indigestible foods are being prepared.

If you like fresh and freshly cooked food, it is wise to choose a restaurant whose menu is not too large for the size of the establishment. A limited number of menu entries means fewer leftovers and preparation of fresh foods every day. If a strikingly wide range of choice is offered in a small establishment, it may often be making undue use of canned, frozen, and ready-to-heat-and-serve foods, or it may serve canned soups or soups and consommes made from "soup essences" or bouillon cubes. Some restaurants use monosodium glutamate freely to give "flavor" to poor quality foods, or foods no longer fresh.

A restaurant with a limited staff does better with a few foods carefully chosen and skilfully, painstakingly prepared. The competent restaurant keeper spends much of his time in marketing for good quality fresh foods. He does not simply take from deliverymen, sight unseen, stocks of ready-to-cook-or-heat foods. The able restaurateur is an expert on the raw materials of cookery, and shops painstakingly for what he uses; he is not merely the ready acceptor of what his supplier chooses to deliver. He uses canned, precooked, and frozen foods to the smallest practicable extent.

Some very good restaurants ask that they be given time to prepare and serve their food properly. Speed of service very often goes with foods that have been kept warm on the steam table, or, in the case of meat and chicken, that will be quickly reheated in the broiler or in a bath of hot grease.

If the user should touch the water or touch or grasp the metal pot, pan, or pail in which the Lux (shown) or Jiffy device is heating water and at the same time touch a faucet or other grounded metal object, a severe shock would be the likely result. Under the conditions illustrated, for example, the flow of electricity was found sufficient to light a lamp bulb—more than enough to kill anyone who is careless, or unaware of the danger.

Immersion water heaters—

A shock may kill

'WAY BACK in April 1949, Consumers' Research tested and reported on several small electrically-operated water heaters. *Four of six brands* received *C-Not-Recommended* ratings because they were found dangerous to use; of these, three had bare wire in contact with the water being heated. One should be most cautious in using any appliance in which a bare wire carrying electricity comes in contact with water that a person might touch.

Recently CR purchased a new sample of one of the four not-recommended heaters to see whether any changes had been made to remove the danger of electrical shock and possible electrocution involved in its use. While the name of the heater has been shortened—from *Super Lux* to *Lux*—the construction of the 1957 model of this brand was almost identical with that of the one tested eight years ago.

There are other similar plug-in immersion water heaters advertised in Sunday newspapers and popular magazines. One, the *Jiffy* electric heater, also employs an open coil heating element and is as dangerous to use as the *Lux*.

The instructions for use for both heaters were on printed paper tags fastened to the cords. Both sets of instructions were written mainly to protect the heater rather than the user, although both had a warning that *the user should never touch the water being heated while the current was on*. Possibly this specific warning was included because manufacturers found out that open-coil heaters accounted for shocks to users. (One third of the bathroom electrical fatalities in one year, not long ago, were due to heaters of this general sort, of which many had been sold by door-to-door salesmen to homemakers.)

A second type of water heater which can be a source of great hazard is one which employs open coils but is attached to a water faucet and heats

The Lux

The Jiffy Electric Heater

The picture shows the Lux opened for examination. The heating coils are such that they come in contact with the water, a most dangerous construction.

the water as it flows through into a container. Although four brands of the faucet-type heater were included in the previous test, such heaters are no longer widely advertised.

Some who have used, without injury, a portable water heater in which water comes into direct contact with the wire of the heating element may question the need for a warning regarding the danger involved. Even if the device is used *exactly* as directed, the operator may not be safe. A moment's inattention could be fatal; no consumer should ever assume complete and perfect vigilance in any such matter on the part of every person in his household. The instructions do not warn against the danger involved when a metal container is used for the liquid to be heated. Even if they did, instructions passed from person to person, such as parent to child, or one child to another, have a way of being shortened, or transmitted only in part, or incorrectly.

A third and far less objectionable type of portable water heater consists of a heating element completely sealed in a waterproof shell. As a rule, this type should be relatively safe to use, from the standpoint of electrical shock, and if your landlord doesn't supply enough hot water on occasion or you have other need for such an expensive-to-use gadget and its purchase is a must, look for that general type.

Unfortunately, however, lack of care in design or manufacture can make the sealed-element type of water heater just about as dangerous electrically as the open-coil type.

A good example of a dangerous sealed-element type of heater is the widely advertised and attractive *Liliput* immersion heater. It would perform its advertised function conveniently, although not as fast as claimed. In designing the little device, however, the manufacturer failed to make a watertight connection between the extension cord and the heating element enclosed in the plated metal tube. As a result, if the device was accidentally immersed, or rinsed off under a faucet, water easily entered the plastic plug-like housing enclosing the cord-element connection and made the *Liliput* about as dangerous to use as the *Lux* and *Jiffy* devices.

None of the heaters listed carried the *UL* label. If you purchase *any* make of electric water heater, be certain that the label is present both on the cord *and* the device. A label on the cord does not provide any assurance whatever as to the safety of the device as a whole.

C. Not Recommended

The three water heaters following are potentially very dangerous electrical devices, for leakage current that might enter the body of a person using one of the appliances was high enough to cause death.

Jiffy Electric Heater (Electra, Inc., 809 W. Waveland Ave., Chicago 13) $1.25, plus postage.

Liliput Dip Heater (Purchased from the United Cutlery and Hardware Products Co., 108 E. 16 St., New York 3) $2.98, postpaid. Also available from other dealers by mail order.

Lux Water Heater (The Lux Co., Inc., Elkhart, Ind.) $2.60.

The Liliput Immersion Heater

OFF THE EDITOR'S CHEST

CONSUMERS are not spending their money to the satisfaction of those who have products for sale. People are reported to be better off than ever, and surveys indicate that they have intentions to buy but they are taking their time, particularly on large items in the home appliance field. New automobiles, too, are not being taken off dealers' hands as readily as manufacturers would wish. Is there a buyers' strike? Apparently not, but, as one analyst put it, there is "a slight, but definite trend toward a more conservative attitude." Consumer demand, while expanding slightly and setting higher buying records, is becoming noticeably selective.

It appears that consumers are not happy about the price situation. There are scattered reports of price resistance in the home appliance and home furnishings field. The vacuum cleaner industry took notice of the wary attitude of consumers by announcing new models and lower prices in a number of cases early in 1957, but it is too early to judge what effect these price reductions have had on sales. Current reports, however, on other appliances indicate slight to substantial price increases. Higher prices are the prevailing trend in most men's wear lines.

The automobile industry has tried to promote the idea of "more car for more money," but the seasonal sales increase that was expected during the spring failed to materialize. On the other hand, used cars were reported as selling well, attracting the price-conscious buyers. Sales of the small "economy" foreign cars are reported to be booming.

The business forecasters seem to think that creeping inflation may have made inroads upon the purchasing power of consumers. One bank letter reports that "real" consumer expenditures per capita were little if any higher in the first quarter of 1957 than in the third quarter of 1955, at the peak of the automobile and home-building boom. Personal income rose steadily in 1957, but, although aggregate sales were 5 percent above the same period last year, with the increase for durable goods somewhat above the over-all average, the physical volume of goods has increased only moderately; roughly half of the sales gains were due to increased prices, according to one financial letter. Competitive pressures have held down wholesale price increases in a number of fields, but even modest advances in retail prices will cut sharply into spending power, particularly for the many people on fixed incomes.

The creeping inflation is coming to be known as "wage inflation," sometimes called a "wage-push" inflation. It is described as due to the fact that trade unions by their monopoly power can secure wage increases greater than the increases in productivity (output of goods and services per man hour). The wage rises are passed on to consumers in the form of higher prices for the various commodities they buy. The new form of inflation apparently has caught government leaders and economists off guard and unprepared to deal with the situation. Restrictive money policies—the orthodox method of handling money inflation—have not been particularly effective; nor has moral suasion had any noticeable influence in keeping prices down. It is customary to argue that a step-up in productivity so that output will at least match wage hikes is an effective remedy; but if consumers balk at taking products off the market as fast as they are being turned out, this technique will not work.

One observing economist points out that one of the heaviest drains on the earnings of the average family is income taxes, which must be taken into account in any cost-of-living index. The amount of the average family's disposable income is seriously cut down by something like 20 percent to 25 percent taken by the federal government. It would appear that the Administration's appeal to labor and business for self-restraint might well be applied to federal, as well as state, county, and city governments', demands for more and more tax money from the citizens. Up to 50 percent of national income goes for taxes, according to one estimate.

In any event, the American consumer is in the spotlight. If he does not expand his purchases of goods and services, government, business, and labor will feel the effects of his staying away from the market place. With present interest rates increasing on savings, he may be tempted to sit and wait until he is offered *better values for his money*. One thing is certain, the consumer's favor will be urgently solicited, and he will be subjected to considerable pressure to part with his cash. The time is certainly propitious for the consumer to indicate his desire to have more of the money that he earns made available by a reduction in his taxes so that he can spend it himself, for the many things he would like to buy.

Ratings of Motion Pictures

THIS section aims to give critical consumers a digest of opinion from a wide range of motion picture reviews, including the motion picture trade press, leading newspapers and magazines—some 19 different periodicals in all. The motion picture ratings which follow thus do not represent the judgment of a single person, but are based on an analysis of critics' reviews.

The sources of the reviews are:

Boxoffice, Cue, Daily News (N. Y.), *The Exhibitor, Films in Review, Harrison's Reports, Joint Estimates of Current Motion Pictures, Motion Picture Herald, National Legion of Decency, Newsweek, New York Herald Tribune, New York Times, The New Yorker, Parents' Magazine, Release of the D. A. R. Preview Committee, Reviews and Ratings* by the Protestant Motion Picture Council, *The Tablet, Time, Variety* (weekly).

The figures preceding the title of the picture indicate the number of critics whose judgments of its entertainment values warrant a rating of A (recommended), B (intermediate), or C (not recommended).

Audience suitability is indicated by "A" for adults, "Y" for young people (14-18), and "C" for children, at the end of each line.

Descriptive abbreviations are as follows:

adv—adventure
biog—biography
c—in color (Ansco, Eastman, Technicolor, Trucolor, Warner Color, etc.)
car—cartoon
com—comedy
cri—crime and capture of criminals
doc—documentary
dr—drama
fan—fantasy
hist—founded on historical incident
mel—melodrama
mus—musical
mys—mystery
nov—dramatization of a novel
rom—romance
sci—science fiction
soc—social problem drama
trav—travelogue
war—dealing with the lives of people in wartime
wes—western

A	B	C		
—	9	5	**Abandon Ship! (British)**	*dr A*
—	—	5	**Abductors, The**	*dr AYC*
—	2	2	**Affair in Reno**	*mel-c A*
4	8	4	**Affair to Remember, An**	*dr-c A*
—	1	3	**African Manhunt**	*mel A*
—	3	1	**Apache Warrior**	*hist-mel AYC*
—	3	4	**Attack of the Crab Monsters**	*sci AY*
—	2	1	**Baby and the Battleship, The (British)**	*com-c AYC*
2	7	10	**Bachelor Party, The**	*dr A*
—	4	6	**Badlands of Montana**	*wes A*
—	6	4	**Bailout at 43,000**	*war-mel AYC*
—	4	9	**Band of Angels**	*mel-c A*
1	3	1	**Battle Hell (British)**	*war-mel AY*
—	1	6	**Bayou**	*mel A*
—	12	7	**Beau James**	*biog-c A*
—	—	3	**Beautiful But Dangerous**	*dr A*
—	2	7	**Beginning of the End**	*sci AY*
—	—	3	**Bermuda Affair (British)**	*dr A*
—	6	6	**Bernardine**	*com-c AYC*
—	5	8	**Beyond Mombasa (British)**	*mel-c AY*
—	5	9	**Big Caper, The**	*cri-mel A*
—	4	—	**Black Tent, The (British)**	*adv-c A*
—	1	7	**Bop Girl Goes Calypso**	*mus-com A*
2	12	5	**Boy on a Dolphin**	*mel-c A*
—	3	5	**Break in the Circle (British)**	*war-dr A*
—	2	1	**Brothers Rico, The**	*cri-mel A*
—	1	4	**Buckskin Lady, The**	*wes A*
—	2	9	**Burglar, The**	*mys-mel A*
—	6	11	**Buster Keaton Story, The**	*biog AYC*
—	5	3	**Calypso Heat Wave**	*mus-com A*
—	5	5	**Calypso Joe**	*mus-com A*
—	2	1	**Checkpoint**	*mel-c A*
—	7	6	**China Gate**	*war-mel A*
1	3	—	**Colditz Story, The (British)**	*mel AYC*
—	—	4	**Constant Husband, The (British)**	*com A*
—	3	5	**Counterfeit Plan, The (British)**	*cri-mel A*
—	2	2	**Courage of Black Beauty**	*dr-c AYC*
—	4	6	**Curse of Frankenstein, The (British)**	*cri-mel-c A*
—	6	10	**D.I, The**	*war-dr A*
—	3	4	**Deadly Mantis, The**	*sci AYC*
—	6	—	**Decision Against Time (British)**	*mel AYC*
—	7	8	**Delicate Delinquent, The**	*com AYC*
2	8	9	**Designing Woman**	*com-c A*
3	13	2	**Desk Set**	*com-c AY*
—	1	3	**Destination 60,000**	*mel A*
1	4	4	**Devil's General, The (German)**	*war-dr A*
1	5	4	**Dino**	*soc-dr A*
—	9	1	**Doctor at Large (British)**	*com-c A*
1	6	5	**Dragoon Wells Massacre**	*wes-c AYC*
—	3	2	**Dragstrip Girl**	*mel A*
—	—	6	**8 x 8**	*fan-c A*
—	1	5	**Escapade (British)**	*dr A*
1	7	7	**Face in the Crowd, The**	*dr A*
—	—	3	**Female Jungle**	*dr A*
—	1	3	**Fernandel the Dressmaker (French)**	*com A*
—	9	4	**Fire Down Below**	*mel-c A*
—	3	1	**Footsteps in the Night**	*mys-mel A*
—	6	4	**French They Are a Funny Race, The**	*com A*
—	7	4	**Fury at Showdown**	*wes A*
—	3	1	**Fuzzy Pink Nightgown, The**	*mys-mel A*
—	6	9	**Garment Jungle, The**	*doc-mel A*
—	1	4	**Giant Claw, The**	*sci AY*
—	2	1	**Girl from Corfu (Greek)**	*com-c AYC*
—	2	10	**Girl in the Kremlin, The**	*mel A*
—	3	3	**God is My Partner**	*dr AYC*
—	7	2	**Green Man, The (British)**	*cri-mel A*
—	1	6	**Gun Duel in Durango**	*wes AYC*
—	7	3	**Gun Glory**	*wes-c AYC*
3	10	5	**Gunfight at the OK Corral**	*wes-c A*
—	8	3	**Guns of Fort Petticoat, The**	*wes-c AYC*
1	12	3	**Happy Road, The**	*com AYC*
4	6	2	**Hatful of Rain, A**	*dr A*
7	9	1	**Heavens Knows, Mr. Allison**	*war-dr-c AYC*
—	5	5	**Hellcats of the Navy**	*war-dr AYC*
—	2	3	**Hell's Crossroads**	*wes-mel A*
—	2	7	**Hidden Fear**	*cri-mel A*
—	2	3	**High Terrace (British)**	*mys-mel A*
—	1	9	**Hit and Run**	*cri-mel A*
—	1	2	**Hold That Hypnotist**	*com AYC*
—	4	3	**Hot Rod Rumble**	*mel A*
—	1	3	**Hot Shots**	*com A*
1	3	3	**House of Numbers**	*cri-dr A*
—	2	2	**I Was a Teenage Werewolf**	*cri-mel A*
—	8	3	**If All the Guys in the World**	*dr AYC*
—	4	1	**Interlude**	*dr-c A*
—	1	3	**Invasion of Saucermen**	*sci AY*
—	8	2	**Iron Sheriff, The**	*wes A*
1	6	11	**Island in the Sun**	*dr-c A*
—	3	5	**Jeanne Eagles**	*biog A*
—	10	3	**Joe Butterfly**	*war-com-c A*
1	3	1	**Joe Dakota**	*wes-c A*
—	6	2	**John and Julie (British)**	*com AYC*
3	9	2	**Johnny Tremain**	*hist-c AYC*
—	2	2	**Julietta (French)**	*com A*

A	B	C		
—	3	6	**Kettles on Old MacDonald's Farm, The**	*com AYC*
—	7	6	**Kronos**	*sci AYC*
—	—	4	**Lady of Vengeance (British)**	*cri-mel A*
—	5	1	**Land Unknown, The**	*sci A*
—	8	1	**Last of the Badmen**	*wes-c AYC*
—	6	4	**Let's Be Happy (British)**	*mus-com-c AYC*
—	2	1	**Life and Music of Verdi, The (Italian)**	*mus-dr-c A*
—	2	2	**Light Across the Street, The (French)**	*dr A*
—	5	13	**Little Hut, The**	*com-c A*
—	4	10	**Living Idol, The**	*adv-c A*
—	4	14	**Lizzie**	*dr A*
—	6	6	**Lonely Man, The**	*wes AYC*
3	9	3	**Lost Continent, The (Italian)**	*trav-c A*
1	6	3	**Love in the Afternoon**	*dr A*
—	1	4	**Lovers' Net (French)**	*cri-dr A*
—	5	6	**Loving You**	*mus-com-c A*
—	2	3	**Lure of the Swamp**	*mel A*
—	—	4	**Maid in Paris (French)**	*dr A*
—	8	6	**Man Afraid**	*cri-mel AYC*
—	2	1	**Man in the Road, The (British)**	*mel AYC*
1	5	1	**Man of a Thousand Faces**	*biog A*
1	7	2	**Man on Fire**	*dr A*
—	10	3	**Midnight Story, The**	*cri-mel A*
—	3	4	**Miller's Beautiful Wife, The (Italian)**	*com-c A*
—	6	10	**Monkey on My Back**	*biog A*
—	—	3	**Monster from Green Hell, The**	*sci AYC*
—	4	5	**Monster that Challenged the World, The**	*sci AY*
—	5	4	**Monte Carlo Story, The**	*mus-dr-c A*
—	2	4	**My Gun is Quick**	*cri-mel A*
—	11	1	**Naked Eye, The**	*doc-c A*
—	2	6	**Nana (French)**	*dr-c A*
1	11	1	**Night Passage**	*wes-c AYC*
—	4	4	**Night the World Exploded, The**	*sci AYC*
—	—	6	**No Time to be Young**	*soc-dr A*
—	4	1	**Not of this Earth**	*sci A*
—	6	3	**Oklahoman, The**	*wes-c AY*
—	2	3	**Omar Khayyam**	*adv-c A*
—	5	2	**On the Bowery**	*doc A*
—	5	2	**Out of the Clouds (British)**	*mel-c AYC*
—	4	2	**Outlaw's Son**	*wes A*
2	3	1	**Pajama Game, The**	*mus-com-c A*
—	1	14	**Paris Does Strange Things (French)**	*com-c A*
—	3	4	**Passionate Summer (French)**	*dr A*
—	1	3	**Pawnee**	*mel-c AYC*
—	3	5	**Phantom Stagecoach, The**	*wes AYC*
—	4	1	**Pickup Alley (British)**	*mys-mel A*
5	2	7	**Pride and the Passion, The**	*dr-c A*
2	9	5	**Prince and the Show Girl, The**	*com-c A*
1	3	—	**Pursuit of the Graf Spee (British)**	*war-dr-c AYC*
—	7	1	**Raising a Riot (British)**	*com-c AYC*
2	8	6	**Reach for the Sky (British)**	*war-dr AYC*
6	6	—	**Red Balloon, The (French)**	*fan-c AYC*
—	5	3	**Restless Breed, The**	*wes-c A*
—	6	6	**Ride Back, The**	*mel-c A*
2	7	5	**Rising of the Moon, The**	*dr AYC*
—	3	11	**River's Edge, The**	*cri-mel-c A*
—	1	2	**Rock All Night**	*mus-mel A*
—	4	7	**Royal Affairs in Versailles (French)**	*dr-c A*
—	5	4	**Run of the Arrow**	*mel-c A*
—	5	11	**Saint Joan**	*dr A*
—	3	3	**Scandal in Sorrento (Italian)**	*com-c A*
—	2	2	**Sen Wife (British)**	*dr-c A*
—	5	8	**Seventh Sin, The**	*dr A*
—	8	2	**Shadow on the Window, The**	*cri-mel A*
—	2	7	**She Devil**	*sci A*
—	6	2	**Shoot-Out at Medicine Bend**	*wes AYC*
—	5	5	**Sierra Stranger**	*wes A*
4	8	4	**Silk Stockings**	*mus-com-c A*
1	10	6	**Something of Value**	*mel A*
—	3	—	**Spanish Gardner, The (British)**	*dr-c AYC*
—	2	2	**Spoilers of the Forest**	*mel-c AYC*
—	3	8	**Spring Reunion**	*dr A*
—	5	4	**Stella (Greek)**	*dr A*
—	4	4	**Storm Rider, The**	*wes AYC*
—	7	11	**Strange One, The**	*soc-dr A*
1	6	8	**Sweet Smell of Success**	*dr A*
—	6	4	**Tall T, The**	*wes-c A*
—	8	4	**Tammy and the Bachelor**	*com-c AYC*
—	9	4	**Tarzan and the Lost Safari (British)**	*adv-c AYC*
—	4	—	**That Night**	*dr AYC*
—	7	2	**Third Key, The (British)**	*mys-mel AYC*
3	7	6	**This Could be the Night**	*mus-com A*
—	—	3	**Three Feet in a Bed (French)**	*com A*
—	3	1	**3:10 to Yuma, The**	*wes A*
—	1	4	**Tip on a Dead Jockey**	*mel A*
—	7	2	**Torero! (Mexican)**	*biog A*
—	4	—	**Town Like Alice, A (British)**	*war-dr AYC*
—	7	2	**Town on Trial (British)**	*mys-mel A*
1	3	—	**Triple Deception (British)**	*cri-mel-c A*
—	6	4	**Trooper Hook**	*wes A*
—	5	3	**20 Million Miles to Earth**	*sci AY*
—	5	4	**27th Day, The**	*sci A*
—	—	6	**Two Grooms for a Bride (British)**	*com A*
—	1	4	**Undead, The**	*fan A*
—	—	4	**Unearthly, The**	*cri-mel A*
—	3	11	**Untamed Youth**	*mus-mel A*
—	1	3	**Valerie**	*mel A*
—	6	4	**Value for Money (British)**	*com-c A*
—	1	5	**Vampire, The**	*cri-dr A*
1	6	6	**Vintage**	*dr-c A*
—	—	9	**Voodoo Island**	*cri-mel A*
—	—	6	**Voodoo Woman**	*mel A*
—	8	2	**War Drums**	*mel-c AYC*
—	7	7	**Way to the Gold, The**	*mel A*
—	8	9	**Wayward Bus, The**	*dr A*
—	4	2	**Weapon, The (British)**	*mel A*
1	4	—	**Will Success Spoil Rock Hunter?**	*com-c A*
—	1	2	**Winner's Circle (French)**	*dr A*
—	3	7	**X the Unknown (British)**	*mel AYC*
—	—	3	**Yellowneck**	*mel-c A*
—	3	7	**Young Don't Cry, The**	*soc-dr A*
—	3	7	**Zombies of Mora-Tau**	*fan A*

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Reissues (oldtimers you may have seen before) as previously rated in the Bulletin indicated:

A	B	C		
1	8	4	**Bride Goes Wild, The (Oct. '48)**	*com A*
—	6	10	**Bright Leaf (Jan. '51)**	*dr A*
9	9	—	**Cinderella (July '50)**	*mus-car-c AYC*
7	4	3	**East of Eden (Sept. '55)**	*dr-c A*
9	7	3	**For Whom the Bell Tolls (Feb. '44)**	*war-dr-c A*
5	11	1	**Gaslight (Feb. '45)**	*mys-mel A*
1	4	10	**Green Dolphin Street (June '48)**	*dr AY*
5	11	1	**Jim Thorpe—All American (Jan. '52)**	*biog A*
—	1	7	**1,000 Years from Now (Captive Women, May '53)**	*sci A*
—	5	12	**Postman Always Rings Twice, The (Oct. '46)**	*cri-dr A*
4	8	4	**Strangers on a Train (Jan. '52)**	*cri-mel A*
—	10	4	**West Point Story, The (June '51)**	*mus-com A*
1	10	5	**Winning Team, The (Jan. '53)**	*biog AYC*
1	10	5	**Young Man with a Horn (Sept. '50)**	*mus-dr A*

Phonograph Records

BY WALTER F. GRUENINGER

Please Note: The first symble applies to quality of interpretation, the second to fidelity of recording.

Beethoven: *Sonatas Op. 12 Nos. 1* and *3* for violin and piano. Kogan and Ginsburg. Vanguard VRS 6029. $4.98. The celebrated Russian violinist, Kogan, plays crisply in contrast to the "titan" style of some. His partner is good. Unfortunately the engineering is of low order. AA B

Brahms: *Symphony No. 1.* Boston Symphony under Munch. RCA Victor LM 2097. $3.98. The performance of this great symphony falls short of the glorious Toscanini on Victor LM 1702, but it is better recorded, and it is strong and heroic. The fourth movement drags at the start, but picks up. Certainly this recording belongs in the exalted group next to the Toscanini. A AA

Clementi: *Trios.* Trio di Bolzano. Epic LC 3351. $3.98. There's charm and verve in these six works for violin, cello, piano. Played with conviction. Fine recording. AA AA

Hovhaness: *Anahid* and *Alleluia* and *Fugue* for String Orchestra and *Tower Music for Brass.* MGM E 3504. $3.98. The orientalism of *Anahid* is followed by an organum choir of strings and by a 1955 tower piece. They show several facets of this gifted, exciting, contemporary American composer. Not great music, but agreeable. Well played and recorded. AA AA

Liadov: *Eight Russian Folksongs, Kikimora, The Enchanted Lake, Baba Yaga* & **Balakirev:** *Islamey.* Bamberg Symphony under Perlea. Vox PL 10280. $4.98. Principally descriptive music by a Russian composer not heard often. *Islamey* is an arrangement of a piano piece. Competent, careful playing that would benefit by more gusto. Bright recording. A AA

Milloecker: *Highlights from The Beggar Student.* Anday, Christ, Preger, etc., under Paulik. Vanguard VRS 1004. $4.98. Lively, tuneful Viennese operetta sung by a Viennese group who knows the score. AA AA

Mozart: *Symphonies 29, 30, 31, 32.* Philharmonic Symphony Orchestra of London under Leinsdorf. Westminster XWN 18216. $3.98. Mozart was feeling his way when he wrote these symphonies but *Nos. 29* and *31* are major efforts. Sparkling playing, not always full nuance, by a modest size orchestra which plays close to the mike. A AA

Palestrina: *Missa Brevis* and *Missa Ad Fugam* and short numbers by Bach, Lotti, Lasso, Handl. Netherlands Chamber Choir under de Nobel. Epic LC 3359. $3.98. Beautifully controlled singing of two masses which Palestrina composed about 1550. Overside, a group of short numbers, which do not measure up to the Palestrina in interest, are well sung. Spacious recording. AA AA

Ravel: *Sonata* & **Hindemith:** *Sonata No. 3* & **Prokoflev:** *Sonata* for Violin Solo and *Five Melodies* for Violin and Piano. Szigeti (violin), Bussotti (piano). Columbia ML 5178. $3.98. A champion of modern violin music plays a few samples superbly. He is well partnered and recorded. AA AA

Schubert: *The Death of Lazarus.* Soloists and the Philharmonia Orchestra of Hamburg under Winograd. MGM E 3526. $3.98. First recorded performance of Act I of a three-act oratorio which Schubert never completed. Some regard it as a Schubert masterpiece. Winograd controls his forces well and the whole thing comes off with poetry and drama. AA AA

Tchaikovsky: *Serenade for Strings* & **Barber:** *Adagio* & **Elgar:** *Introduction* and *Allegro.* Strings of the Boston Symphony under Munch. RCA Victor LM 2105. $3.98. These works have made their mark in the string orchestra repertory, though the style of composition is far from similar. Played with assurance, virility, artistry, and well recorded. AA AA

Tchaikovsky: *Symphony No. 6.* L'Orchestre de la Suisse Romande under Ansermet. London LL 1633. $3.98. A highly personal conception of the celebrated "Pathétique." There's more intellect than passion which may rule it out for some. The recording is less brilliant than others, but clear. The stylus was thrown out of two grooves in the closing measures, indicating a flaw in manufacture. I place it in the group following Monteux-Victor 1901 and Ormandy-Columbia 4 ML 4544. A A

Hi-Fi Feast for Orchestra. Philharmonic Symphony of London under Quadri. Westminster XWN 18451. $3.98. "Sorcerer's Apprentice," "Danse Macabre," "Marche Joyeuse," "Iron Foundry," etc. Short, showy orchestral pieces. Quadri conducts some sections more slowly than commonly heard. Otherwise it's good. The recording points up cymbals, drums, and bass instruments to show off the ends of the audio spectrum. Good for hi-fi demonstrations. A AA

Horowitz in Recital (piano). RCA Victor LM 1957. $3.98. Pieces by Schumann, Chopin, Haydn, Scarlatti, etc., recorded at actual performances (hear the coughing!) in most cases. The fidelity is quite satisfactory; the playing is in typical taut, clear style. AA A

Italian Songs for Solo Voice. Alfred Deller (counter-tenor). Bach Guild 565. $4.98. Lovely airs by Caccini, Saracini, Paradisi, Gagliano, and other composers of the Italian Baroque. Sung with fine artistry, but the quality of a counter-tenor's voice does not please everyone. A scintillating Paradisi harpsichord sonata adds to the pleasure. AA AA

Operatic Recital by Anita Cerquetti (soprano). London LL 1601. $3.98. An outstanding young Italian dramatic soprano sings arias from Verdi, Bellini, Spontini. She has a ravishing voice reminiscent of Rosa Ponselle's, but interpretation and pitch sometimes elude her. Yet, a stirring record and a promise of great things to come. A AA

Recital of Richard Strauss Lieder. Hilde Gueden (soprano). London LL 1591. $3.98. Thirteen lieder including some of Strauss' best. The singing is not perfect but it is flexible, colorful, of a high order. Delectable piano playing by Friedrich Gulda. Well recorded. A AA

The Deutschmeisters Take a Holiday. (Band under Herrmann.) Westminster WP 6044. $3.98. Marches, dances, folk music which bring a bit of old Vienna to the rest of the world. AA AA

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TOPS Records sell for $1.49 per 12-inch LP which is below the price of most records. I have listened to half a dozen of them and find only one that I care to add to my library: "Lillian Roth Sings" (TOPS L 1567). Here you have "After You've Gone," "Beyond My Worth," "I'll Never Smile Again," and nine others sung with distinction and well recorded. But the remainder of this test batch certainly do not equal the best of our time. The purchaser must decide whether he is willing to take less than the best because it is cheap. *Holiday in Italy* presenting instrumental performances of "O Sole Mio," "Oh Marie," etc. (L 1529), and *My Fair Lady* (L 1537) were better than the remainder. Surfaces are a little more audible than some higher-priced records. For information, write TOPS Music Enterprises, 79 Crosby Street, New York City 12.

The Consumers' Observation Post

(*Continued from page 4*)

THE COURTS SHOULD APPOINT A SCIENTIST-EXPERT acceptable to both sides in any case requiring evaluation of scientific determinations and evidence That is the perspicacious suggestion of Professor Jonathan Karas of the Department of Physics, University of New Hampshire. As an expert on matters involving automobile crashes, Professor Karas has been subjected to examination and cross examination by lawyers and judges who have taken the irrational position that if the expert witness did not see the particular accident under consideration, he could not draw valid general conclusions on the basis of the scientific principles involved. In a jury trial particularly, Dr. Karas believes the scientific principles and valid generalizations that apply to the case by either side should be expounded without petty heckling and attempts to trip up the expert by trivia or absurd observations that are often heard in court trials of accident cases.

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SMOKED MEATS, such as ham, bacon, or sausages, sometimes become spotted with mold in the home refrigerator. As a rule they may be considered safe to eat if the moldy section is removed, advises the Journal of the American Medical Association. Fresh meat, however, that has become spotted with mold or fungus should be thrown out. The Journal points out that food poisoning from the eating of meat is usually of bacterial origin and occurs when the meat has stood in an atmosphere suitable for the growth of bacteria.

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IN THE PRESENT COMPETITIVE STRUGGLE TO SELL CARS, there are a number of sharp practices that have aroused the wrath of many automobile dealers and the Better Business Bureaus, not to mention the customers who have been victimized. According to the New York Times, one of the most flagrant abuses is what the trade calls "low balling." Briefly, this may be defined as quoting a low price initially and then backing down or loading the car with extras when the purchaser is ready to sign the purchase contract. Sometimes the purchaser refuses to go through with the deal; in other cases he may need the car badly and be persuaded to pay the higher price for optional equipment such as power steering and a de luxe windshield wiper that he did not order and that were not included in the original price.

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WHETHER THE EXTERNAL APPLICATION OF ESTROGEN CREAMS produces an effective improvement of the skin and is free from undesirable systematic effects was discussed by Irving H. Blank, Ph.D., of Boston, in a symposium sponsored by the Committee on Cosmetics of the American Medical Association last June. Dr. Blank concluded that it was not possible to take the position that the external application of estrogen creams does nothing for aging skin, but that good clinical evidence to support a statement to the contrary is not yet available either. It was his view that the medical profession had not yet adequately responded to the challenge of evaluating the possible systematic effects. In the light of this uncertainty, women may wish to stick to less expensive lanolin creams, which are known to be effective lubricants, and save their money.

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WHEN YOU PUT YOUR BRAKES ON in an emergency, how soon can you bring your car to a dead stop? According to the California Highway Patrolman, the distance required to brake from 70 miles per hour to 50 is greater than that required to come to a halt from 50 miles per hour.

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THOSE CLAIMS FOR REDUCING without any special diet or reduction of food intake are very alluring to some people. The National Better Business Bureau, however, has examined the claims for two products based on the use of phenyl propanolamine hydrochloride as an appetite depressant and comments adversely on the promises made. The use of this particular drug is

not free from adverse side effects, and the Food and Drug Administration requires that any product containing it must carry a warning label: "Caution. Individuals with high blood pressure, heart disease, diabetes, or thyroid disease should use only as directed by a physician. Do not exceed recommended dosage." One brand called "Regimen" tablets, sold by mail-order methods, comes in for severe criticism. The Bureau points out that there is no justification for the advertising claims that an appetite-depressing drug will effect tremendous weight loss without dieting and, furthermore, purchasers of the product are informed in an accompanying leaflet that "to weigh less you must eat less." As we have often pointed out, reduction of food intake is the safest and most inexpensive way to secure a reduction in poundage.

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ELECTRIC BLANKETS are a favorite method of keeping warm for chilly consumers who need extra heat but do not like the weight of wool blankets and apparently find down puffs unsatisfactory. During the past year, however, there have been several complaints on servicing when electric blankets have stopped working, and it is sometimes difficult to get thermostats adjusted to the liking of certain individuals. The thermostat controls are complex mechanisms, as one subscriber discovered, when his could not be repaired. It was suggested that he trade in his electric blanket on a new blanket and pay $18.50 more to get a new one. In some cases it would appear that the overhead on an electric blanket is considerably more than that for either wool blankets or down puffs.

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WHAT WOMEN WANT IN LIPSTICKS was the subject (in part) of a consumer survey reported last spring. A considerable number of women expressed the view that cosmetic makers should come up with a lipstick that will prevent chapped lips and not smear.

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MAIL-ORDER FRAUDS are taking in an increasing number of people every year. According to the chief of the U. S. Post Office Department's inspection service, phony medical cures are the biggest single type of fraud attempted through the mails, including fake "tranquilizers" and "atomic" cancer cures. Post Office investigators report heavy direct-mail campaigns offering "happy pills" without a doctor's prescription that are nothing more than the dangerous bromides sold at the price of real tranquilizers. Weight-reducing schemes are also effective in collecting millions each year from obesity-conscious Americans. One dieting fraud that turns up frequently is a rubber bowl containing an ordinary electric light bulb, which is supposed to take off unwanted poundage when the body is exposed to it. Informed consumers could undoubtedly help the Post Office keep track of such schemes by sending circular mail of this type to the Fraud Order Division, U. S. Post Office, Washington, D. C.

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RADIOACTIVE FALL-OUT OVER A CITY may be less than in the country, according to experiments by Heise and Heise mentioned in The Consumers' Observation Post for July. Taking issue with these experiments, Lester Machta of the U. S. Weather Bureau asserts that the upward currents of air that might ward off radioactive danger are too weak to influence the descent of large fall-out particles. He does, however, agree that the city may be safer during and after the fall-out than the near-by countryside because of the availability of shielding and decontamination facilities in urban areas.

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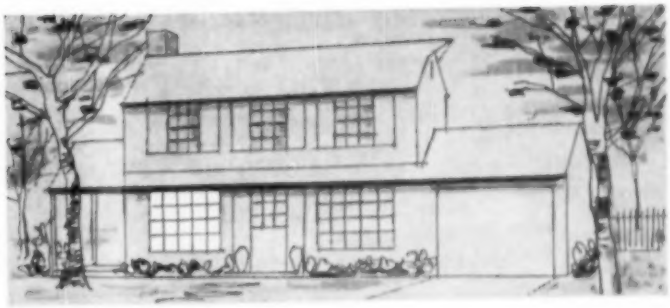
TABLE SALT CAN NOW BE FLUORIDATED by adding sodium monofluorophosphate. According to Dr. Gunnar Santesson of Stockholm, the fluorine compound is readily absorbed, is highly stable, and is one third as toxic as sodium fluoride. The cost of adding fluoride to salt is small compared with that of fluoridating drinking water, and Dr. Santesson points out that it makes fluoride intake a matter of personal choice. Fluoridated salt containing sodium fluoride is already in use in some sections of Switzerland.

To foil that prowler



BUYING BY MAIL through advertisements in newspapers and popular magazines can be a risky business, particularly if the seller is relatively unknown or perhaps supplies only a post office box number as an address. In its work of helping to protect consumers, Consumers' Research from time to time buys an advertised article of popular appeal, and studies its performance in the light of the claims made to determine whether the item represents sound value. Sometimes we find that there is misrepresentation in the advertising that consumers need to be warned against.

The item to be described is a good one, correctly represented. It is an electronic gadget called *Sentri-lite*, shown in the picture below. It was purchased through an advertisement in a leading New York newspaper. It was nicely constructed, and performed very satisfactorily the function claimed for it. Described as "the amazing automatic light switch that turns on lights when it's dark. . .turns off lights at dawn," the device consisted simply of a relay switch which was turned on and off by the action of daylight falling on a sensitive photocell of the vacuum-tube type. The working parts were mounted in a small metal case, about 2 x 3 x 4 inches, with a suitable window to admit light to the cell.

A principal use for the *Sentri-lite* would be to turn on a lamp in your home at night while you are away for a week end or short vacation with the hope that the lighting of the light in the home would tend to deter prowlers or burglars from breaking in. No doubt, in many cases, this would be a way of discouraging persons bent on robbery from attempting to enter a house.

Use of the *Sentri-lite* is very simple. Its cord is plugged into an electrical outlet, and then a table or floor lamp is plugged into the receptacle or outlet provided on the *Sentri-lite*.

As darkness approaches, the amount of light falling on the sensitive cell is reduced, and the lamp in the window is turned on and functions as a burglar-discourager until dawn. In the morning, the coming of daylight outdoors causes the switch in the *Sentri-lite* to operate again and turn the lamp off. It may be necessary to experiment a little to find the preferred position for the *Sentri-lite* in the room. In a room usually somewhat dark because of the presence of shade trees or an overhanging porch roof, for example, the device would have to be closer to the window than in a room in which strong daylight is normally present.

The *Sentri-lite* itself is frugal in the use of current, for it uses about the same amount of electrical energy as an electric clock. The price, $11.95, postpaid, seems reasonable, for a device functioning similarly is sold by a large radio parts supply house for $15.63, plus postage.

A. Recommended

Sentri-lite (Sentri-lite, Box 166, Jamaica 31, N.Y.) $11.95, postpaid.

If you're planning to buy

A CAMERA

A PORTABLE TYPEWRITER

A RADIO

A TV SET

A FOUNTAIN
OR BALL-POINT PEN

A PHONOGRAPH RECORD

AN ELECTRIC SHAVER

OR

AN ISETTA 300

FOR SOMEBODY FOR CHRISTMAS

. . . read Consumer Bulletin for November

before making up your shopping list

57.90